

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 658.—Vol. XVIII.

LONDON, SATURDAY, APRIL 1, 1848.

[PRICE 6D.]

Stannaries of Cornwall.—In the Vice-Chancellor's Court.

HILL v. VIGERS.

IN RE POLBEROU.

OTHERWISE SAINT AGNES CONSOLIDATED MINES.

NOTICE IS HEREBY GIVEN, that the SALE of the ENGINES, MACHINERY, MATERIALS, and EFFECTS upon and belonging to the above-mentioned MINES, is POSTPONED until the month of APRIL next.

HODGE & HOCKIN,

For GRAY & HILL, Solicitors, Helston.

Dated Registrar's Office, Truro, March 1, 1848.

SALE OF LEAD ORES AT ALSTON MOOR.—The following PARCELS of LEAD ORE—namely:

At Headingley Hill Mines—Parcel 1	Computed weight.
400 bings.	
At Headingley Hill Mines—Parcel 2	400 "
At Headingley Hill Mines—Parcel 3	400 "
At Headingley Hill Mines—Parcel 4	400 "
At Headingley Hill Mines—Parcel 5	400 "
At Headingley Hill Mines—Parcel 6	400 "
At Headingley Hill Mines—Parcel 7	400 "
At Headingley Hill Mines—Parcel 8	400 "
At Headingley Hill Mines—Parcel 9	400 "
At Headingley Hill Mines—Parcel 10	400 "
At Headingley Hill Mines—Parcel 11	400 "
At Headingley Hill Mines—Parcel 12	400 "
At Headingley Hill Mines—Parcel 13	400 "
At Headingley Hill Mines—Parcel 14	400 "
At Headingley Hill Mines—Parcel 15	400 "
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At Headingley Hill Mines—Parcel 96	400 "
At Headingley Hill Mines—Parcel 97	400 "
At Headingley Hill Mines—Parcel 98	400 "
At Headingley Hill Mines—Parcel 99	400 "
At Headingley Hill Mines—Parcel 100	400 "

Samples of the ores, and conditions of sale, will be forwarded to any parties wishing to purchase, on application to Mr. John Walton, Neat Hall; and TENDERS for the PURCHASE of the above PARCELS of ORE, separately, will be received by Mr. Wilson, at the Lowryer Inn, Alston, up to Twelve o'clock on Thursday, the 13th day of April, 1848. Neat Hall, Alston, Cumberland, March 29, 1848.

ABSOLUTE SALE OF SHARES IN WEST CARADON
AND GONAMENA MINES.—TO BE SOLD, BY PUBLIC AUCTION, by Mr. JOHN YEO, pursuant to an order of the High Court of Chancery, made in the suit of "Rundle v. Rundle," at Moorhead's Royal Hotel, Devonport, on Thursday, the 13th day of April next, at Two o'clock in the afternoon precisely, in the lots particularised in the printed catalogue and conditions of sale. SIX (36th) SHARES of and in all that productive and well-known COPPER MINE, called WEST CARADON, situate near LISKEARD, in the county of Cornwall. Also, SIX (36th) SHARES of and in all that valuable COPPER MINE, called GONAMENA, contiguous to West Caradon, and in the immediate vicinity of other rich and valuable mines in the Caradon district.

West Caradon, for many years past, has proved one of the most productive and valuable mines in Cornwall; and has for a long period paid dividends every two months, varying from £3 to £7 10s. per 26th share.

The mines in Gonamena are parallel to those in West Caradon, and are believed to be equally rich; and, from the quantity of ore which is now being raised, it is with confidence supposed, that they will ere long become a very profitable mine.

From the circumstances under which these valuable shares are now submitted to public competition, it is needless to add, that they will positively be sold; and, for the convenience of purchasers, they will be put up alternately in 12 lots, commencing with one 26th in West Caradon.

Printed catalogues and conditions of sale may be obtained at Webb's Hotel, Liskeard; from Mr. John Yeo, of Devonport, the auctioneer; or of Messrs. Sole and Turner, solicitors, 68, Aldersbury, London; and for further information may be had on application at the offices of Mr. W. J. Little, solicitor, 53, St. Anby-street, Devonport. Dated March 30, 1848.

SARK MINING COMPANY.—SALE OF MATERIALS.
comprising a PUMPING-ENGINE, 45-inch cylinder, 9 ft. stroke, with two boilers, of about 20 tons, with steam-chest, 15 feet long, 2 feet 6-inch diameter.

A WHIM-ENGINE, 15-inch cylinder, 4 feet stroke (double), with two boilers, of about 7 tons.

A CRUSHING MACHINE, complete, one pair of rollers, worked by a water-wheel, 22 feet diameter, 3 feet broad, with a stamp axle, to work six heads, attached. 28 fathoms 13-inch pumps; 67 ditto 9-inch ditto; 24 ditto 8-inch ditto; 18 ditto 6-inch ditto; 24 ditto 5-inch ditto; 17 ditto 4-inch ditto.

1 19-inch plunger, case, pole, &c., complete; 1 10-inch ditto ditto; 1 9-inch ditto ditto; 2 8-inch ditto ditto; 1 3-inch ditto ditto.

1 8-inch working barrel, complete; 1 6-inch ditto ditto; 2 4-inch ditto ditto.

416 fathoms of 8, 9, 10, and 11-inch shaft-ropes (wood).

90 pairs best iron chains, of about 6 tons.

40 fathoms of 14-inch bucket-ropes (iron).

80 fathoms 1-inch and 14-inch horizontal-ropes (iron).

40 flat-rod and whim-chain pulleys; 100 fathoms 1-inch whim chain.

1 pair shears, 36 feet, with axes and braces, complete.

1 capstan (6 arms), cast-iron axles and sockets, with 150 fathoms of 10-inch rope.

A large quantity of useful iron and materials, fittings of office, complete set of smith's tools, forming lathe, and many other articles.

For further particulars apply to A. J. Le Mesurier, Esq., Guernsey; or to Mr. Matthew Egan, Liskeard, Cornwall.

TO BE SOLD, OR LET, a valuable COAL MINE, in the township of GREAT HARWOOD, in the county of LANCASTER. The mine has been recently proved, and found to be 3 feet 2 inches in thickness, and of excellent quality; it is commonly called, or known, by the name of the UPPER MOUNTAIN MINE, and extends over about 1000 statute acres, which will be divided into suitable lots.

The property is situated between the towns of Blackburn and Clitheroe, and is intersected by a branch of the East Lancashire Railway.

A section of the borings may be seen, by applying to Mr. Boole, Rufford-hall, Ormskirk; or to Mr. Whittle, coal viewer, Charnock Richard, Chorley—to either of whom proposals may be sent.

TO CAPITALISTS.—An opportunity, which rarely occurs, now OFFERS for the INVESTMENT of a MODERATE SUM in a rich TIN MINE, on DARTMOOR, in the county of Devon, known by the name of EAST-BIRCH TOR. Many thousands of pounds worth of tin have already been sold from this mine; the lodes have been extended on, and tributaries are now at work. It is desirable, from the rich course of the tin gone down, to sink to deeper levels; it has, therefore, been determined to augment the capital, by an issue of new shares, which are now in course of appropriation.

A box of specimens has just arrived from the mine, and any party calling at the office, No. 1, Copthall Chambers, Copthall-court, Throgmorton-street, City, can see the same and where all particulars may also be obtained.

Application for the few remaining shares must be made on or before the 25th inst. London, March 16, 1848.

EXTENSIVE IRON-WORKS.—FOR SALE, BY PRIVATE BARGAIN, the BLAIR IRON-WORKS, belonging to the Ayrshire Iron Company, situated in the parish of Dalry, and county of Ayr.

These works, which have been recently erected at an immense cost, consist of two blowing-engines, five blast-furnaces, workmen's houses, steam-engines for working the mine-rails, together with utensils at the pits, furnaces, &c., all in working order, and capable of producing upwards of 35,000 tons of pig-iron per week.

One of the blowing engines, high-pressure, estimated 90-horse power, was erected in 1841; the other, a condensing engine, was erected in 1847, and is estimated at 200-horse power, the latter being capable of blowing five furnaces, and both fitted up in the most substantial manner, and at present in the best working condition.

The furnaces have been erected with the greatest care, and are fitted with air-heating apparatus of the most approved construction. The make of each furnace has generally averaged upwards of 150 tons of iron per week, and some of them have produced 180.

There are, besides the manager's house and store buildings, 187 workmen's houses, in a habitable state, attached to the furnaces and pits, and there are 20 partly built, which could be finished at a small additional outlay. There are also a new foundry, wright shop, fire-brick work, smithy, &c.

The MINERAL FIELDS, consist of COAL, IRONSTONE, LIMESTONE, and FIRE-CLAY, held in lease, by the company, at moderate fixed rents and Royalties, all situated within easy distances of the furnaces, and for the most part have the advantage of railway communication.

The COAL-FIELDS consist of several hundred acres, of which only a small portion has been wrought. Several pits, fitted with good engines and machinery, are sunk to the coal, and partly in operation.

The IRONSTONE consists of the well-known black-band, yielding about 3000 tons of calcined stone per acre; and it has been estimated that there are 300 acres or thereby still to work—besides which, there is a large extent of clay-band ironstone, hitherto little wrought, but capable of yielding a large output. There are 15 pits, with excellent steam-engines—some of them in present operation, and others ready to resume working.

The LIMESTONE QUARRY is worked by open cast, and is connected with the works by railway.

The FIRECLAY is abundant, of excellent quality, and cheaply produced. The Glasgow, Paisley, Kilmarnock, and Ayr Railway (extending to Carlisle), passes close to, and has connection with; the furnaces—by means of which, and others in connection with it, the produce can be conveyed to the city and port of Glasgow (24 miles off), and to the wharves on the Ayrshire coast, each within a few miles of the works.

There is a large stock of calcined ironstone, coal, and limestone on the ground, so that the works may be put into immediate operation, and, under judicious management, the manufacture of pig-iron may be carried on to the greatest advantage. The concern will be found to be well worth the attention of persons having the requisite capital, and affords an opportunity of entering into the business seldom to be met with.

MALLEABLE IRON-WORKS.—Considerable progress has been made in the erection of extensive malleable works, which, when completed, will be capable of turning out 300 tons of bar-iron weekly. The most of the necessary machinery has been prepared by the contractors; and a portion of the work could be brought into operation in a few months to produce the half of the above estimate. This work is nearly adjoining the Pig Iron-Works, and connected by railway, and will be sold either together therewith or separately.

Plans of the property and mineral workings lie for inspection at the Ayrshire Iron Co.'s office, 115, St. Vincent-street, Glasgow, where, on application to Mr. Brown, every necessary information will be afforded, and orders given for inspection of the works.

STEAM-ENGINES.—From 8 to 20-horse power ENGINES ALWAYS IN STOCK.

Apply to Mr. CAPPER, Engine-Maker and Founder, BIRMINGHAM.

Price £12 to £16; with boiler, £25 per horse.

MOST VALUABLE SPECULATION.—TO BE SOLD, under peculiar circumstances, a very great bargain, a SECTION OF LAND, containing EIGHTY ENGLISH ACRES—only three miles from the town of Adelaide (South Australia), containing GALENA (or common lead); also STEEL-GRAINED LEAD—adjoining, on one side, the Glen Osmond Lead Mine, the property of Osmond Gillies, Esq.; and on the other the Wheelbarrow Lead Mine, the property of the South Australian Bank. For price, and further particulars, apply to Alfred Julius, Esq., 19, Buckingham-street, Strand. The title deeds are in the hands of Sir C. Scott, Bart., banker to the proprietor.

VALUABLE TIN SETT FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, the SETT of WEST WHEAL BEAM MINE, with the MACHINERY, WHEELS, PUMPS, ENGINES, &c., in the most perfect and complete state for the effectual working of the mine.

WEST WHEAL BEAM is situated in the centre of a rich mining district, near ASHBURTON, DEVON, and is to be sold for a term of 31 years; subject to the dues of 1-15th and a lord's rent. The sett extends over about 1000 fathoms in length, on the course of the lodes, and 700 fathoms in width. Several tin and copper lodes run through the sett, only two of which have been opened, and from those large returns have been made.

The mine being supplied with all requisite machinery and erections; and possessing an ample water-power, can be worked to the greatest advantage with little outlay.

Application for further information may be made to James Woodley, Esq., the proprietor, at the office of Mr. George Casner, solicitor, Ashburton; or to Mr. Richard Bracewell, London Inn, Ashburton.

VALUABLE SEA-SALE COLLIERIES TO BE LET.—TO BE LET, and entered upon on the 1st of July next, the valuable current-working COLLIERIES of EVERWOOD and NORWOOD, in the county of Durham.

These collieries are situated upon the line of the Stockton and Darlington Railway, by which the coals are conveyed to the shipping ports of Stockton and Middlesbrough; and also, by means of this, and the York and Newcastle, and Leeds and Thirsk Railways, the coals have access to the important land-sale trade of Northallerton, Thirsk, Ripon, York, the lead-mining districts, and other towns in Yorkshire, and for shipment on the Ouse; and, by means of the proposed Northern Counties Union Railway, with the important land-sale trade of the western parts of Yorkshire and Westmoreland.

The royalties are very extensive. Two seams of coal are in working—one upwards of 6 feet, and the other of 3 feet. The pits are at a moderate depth from the surface, and the coal is worked at an exceedingly cheap rate, and is much prized as a household coal, both for export and land-sale.

The entering tenant has the option of taking what stock he may require, at a valuation; and the amount of capital required to enter upon the collieries will be of very small amount.

For particulars apply to Thomas Wheldon, Esq., Barnard Castle; or to Nicholas Wood, Esq., Newcastle-upon-Tyne.—Newcastle, March 3, 1848.

VALUABLE PUMPING AND WINDING ENGINES FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, at WHEAL VOR MINE, in the parish of BREAGE, CORNWALL.

1 80-inch DRAUGHT ENGINE, 10 feet stroke in cylinder, and 8 feet in shaft, main beam and caps, top nozzle, spring piston and rod—all new this year; with four boilers, 12 tons each, in excellent repair.

1 80-inch DITTO, 10 feet stroke in cylinder, 7 feet in shaft, cylinder, piston, bottom and cover, nearly new, with two boilers, of 12 tons each, and three boilers, of 10 tons each, all lately thoroughly repaired.

1 49-inch DITTO, 9 feet stroke in cylinder, and 7 feet in shaft, without boilers.

1 20-inch WINDING ENGINE, 5 feet stroke, with two boilers, of 4 and 6 tons, and vertical cage, all in complete repair—the boilers and some other parts nearly new.

1 18-inch DITTO, 4 ft. stroke, with one boiler, of 5 tons, and horizontal cage, complete. Several tons of straight and turned STEAM-PIPES.

12-head CAST-IRON STAMPS AXLES, with bearings, oak frames, &c., complete. A powerful WEIGHING MACHINE, nearly new, comprising every requisite.

An immense number of PUMPS, matching-pieces and winches, 12 to 17-inch bore, with working barrels, doorknees, H-pieces, cases, with stuffing-boxes and glands to match, from 14 to 19 inches bore, and plunger-poles, from 12 to 19 diameter.

Faggoted rod and cap plates, 6, 7, and 8 inches wide, staples and glands, eyerunners, cages, saddles, troughs and gudgeons for balance and other bobs.

Application to be made to Capt. H. Killick, Jun., on the mine. Dated Nov. 29, 1847.

N.B.—The above are of easy transit to Hayle wharf, and from thence on ship-board, required.

SOUTH WALES.—TO BE SOLD, in LLANDILO TALY- BONT parish, near SWANSEA, the FREEHOLD FARMS, called PENGLYLLYDDRAIN TYRACH and BRYNLLWYD, containing 75 acres, more or less, together with the valuable VEINS of COAL, IRONSTONE, and other MINERALS. The coal is of excellent quality for steam-machinery purposes, and is partly intermined with the property now worked by the Cameron's Coalbrook Steam Coal Company. A considerable portion of the coal under this property may be won at a very small cost.

For particulars apply to Mr. Hiram Williams, No. 51, Moorgate-street, London.

STRONG MIXING PIG-IRON.—The YSTALYFERA IRON COMPANY beg to solicit ORDERS for their ANTHRACITE PIG-IRON. This iron mixes well with Scotch pig—imparting to it strength and elasticity, and receiving from it a portion of its softness and fluidity. No. 3 pig is recommended for making with soft iron. No. 1 and 2 are of great strength, and are particularly adapted for making with soft iron. No. 1 and 2 are of great strength, and are particularly adapted for making with soft iron. No. 1 and 2 are of great strength, and are particularly adapted for making with soft iron.

"It is now only remains for me to mention a property peculiar to this iron, which was noticed at the time I made the trial experiments, four years ago, but which has been more fully developed in those more recently made. The property referred to is one of great springiness, or elasticity, which communicates a tendency to the bar, in deflecting and bending, to return to its rectangular form. It is that which has obtained a permanent set of 2-10ths, when afterwards broken, presented but a slight deviation from a right line; and in no case did the curvature exceed one-fourth of a tenth."

"It was also remarked, that most of the fractures, in breaking, presented a regularity of grain throughout, resembling the structure of unhardened steel."

Address THE YSTALYFERA IRON COMPANY, Near NEATH, SOUTH WALES. Dated June 22, 1847.

HOT-BLAST WITHOUT COAL, LABOUR, OR REPAIRS. DIXON AND BUDD'S PATENTS.

Apply for particulars, or to inspect the process in operation on six blast-furnaces, to J. Palmer Budd, Esq., Ystalyfera Iron-Works, near Neath. Dated June 22, 1847.

STEAM TO INDIA AND CHINA, via EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS

to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY.

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th; and from Suez on or about the 10th of every month.

For rates of passage-money, plans of the steamers, and to secure passages, apply at the company's offices, No. 129, Leadenhall-street, London.

ADCOCK'S PATENT SPRAY PUMP.—This important INVENTION having been PERFECTED, and brought into SUCCESSFUL PRACTICAL OPERATION, the PATENTEE is ready to RECEIVE, and to execute, ORDERS. Apply to Henry Adcock, Esq., at his offices, No. 2, Moorgate-street, London, where pamphlets, descriptive of the invention, may be had; at the office of the Mining Journal, 25, Fleet-street; and through any respectable bookseller—price 6d.

ASSAYING AND ANALYSIS.—MR. MITCHELL begs to inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of ALL PRODUCTS, metallurgical and manufacturing, at his LABORATORY,

23, HAWLEY-ROAD, KENTISH TOWN, LONDON, to which address communications are to be forwarded.—Instruction in all branches of assaying and analysis as usual.

CALLINGTON MINES COMPANY.—At the Fifth Annual General Meeting of shareholders in this company, held this day, it was

Resolved.—That the report and accounts now read and submitted be adopted by this meeting, and entered in the cost and transfer book of the company.—Carried unanimously.

Resolved.—That John Garnet Tyne, Esq., the director retiring from the direction of the company by rotation, and who offers himself for re-election, be re-elected a director of this company.—Carried unanimously.

Resolved.—That the auditors, Messrs. Hammond and Leary, who retire from their office of auditors, and who offer themselves for re-election, be re-elected the auditors of this company for the present year.—Carried unanimously.

Resolved.—That the shareholders in this company are much indebted to, and benefited by, the skillful administration of the directors; and that a special vote of thanks is due, and hereby expressed to them, for their prudent and successful management of the company's property.—Carried unanimously.

Resolved.—That a vote of thanks be presented by this meeting to the chairman, for his courtesy and obliging conduct in presiding over the proceedings of this meeting, and for his full, lucid, and satisfactory exposition of the company's progress and position.—Carried unanimously.

44, Finsbury-square, London, March 31, 1848.

GOLD SMELTING.—The directors of the ORANGE GROVE MINING INCORPORATION, in the State of Virginia, U.S., wish to ENGAGE the SERVICES of a PERSON PRACTICALLY ACQUAINTED with the SMELTING of GOLD ORE. Satisfactory proof will be required of his capability, and a person would be preferred who can superintend the works and machinery, where from 100 to 150 men are at work night and day.—Apply to Messrs. Walker, Grant, & Co., No. 13, King's-road, Bedford-row, London, attorneys for the corporation, who will communicate with one of the directors now in this country.

N.B.—An underground mining dial wanted to purchase.

TO MINING CAPTAINS.—WANTED, an experienced MINER, of good general ability and active habits, to proceed forthwith to CANADA, to undertake the SUPERINTENDENCE of a COPPER and SILVER MINE.—Applications, stating age, nature of present and previous employment, with recommendations and amount of salary required, to be addressed to Messrs. Carter and Bonas, Leadenhall-street, London.

TO BE SOLD, BY PRIVATE CONTRACT, an excellent ENGINE, for pumping or drawing, about 20-inch cylinder, in good condition, with a boiler of 10 tons.—For particulars, application to be made either to Mr. John Tippet, auctioneer; or Mr. H. Ellery, Truro.

N.B.—There are also several tons of pitwork—viz., 18 pumps, 12-inch; 2 working-boilers, 12-inch, nearly new; 2 doorpieces, and 2 windrods.

FOR SALE, BY PRIVATE CONTRACT, a NEARLY NEW ENGINE, on the combined principle of Messrs. Harvey and Co., from the drawings of Mr. W. West, with 60 and 32-inch cylinders—equal to 41-horse power.

Apply to Mr. P. N. Johnson, 79, Hatton-garden, London.

FOR SALE.—A THIRD PART in one of the most promising MINES in WALES—situated within a mile of water-carriage, and advantageously located for the working by water-power. The lodes have been partially worked, yielding large returns of lead ore, and are laid open to a great extent—presenting the most favourable appearances, with large quantities of basalt, from which immediate returns may be made.—For price and particulars, address "X," care of Mr. Ward, accountant, No. 26, Nicholas-lane, City.

LEVANT MINE.—BOTALLACK MINE.—FOR SALE, THREE (30th) PARTS, or SHARES, in the LEVANT MINE, situate in the parish of ST. JUST, in the county of CORNWALL; also, ONE (30th) PART, or SHARE, in the BOTALLACK COPPER and TIN MINE, situate in the same parish. In the latter mine very promising discoveries of copper have been recently made.

For further particulars, apply to Messrs. Tilson, Squance, Clarke, and Morice, No. 29, Coleman-street, London.

BLAENGWAWR STEAM COAL, CARDIFF.—placed on the List of Coals supplied, by Contract, to the Government.—ORDERS for the BLAENGWAWR STEAM COAL RECEIVED by Mr. W. F. STANTON, No. 9, LOVE-LANE, EASTCHEAP; or by Mr. George Sully, agent, 1, Bute-street, Cardiff, Glamorganshire, South Wales.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY	Asiatic—14, Grafton-street.....	3 P.M.
MONDAY	British Architects—16, Grosvenor-street.....	8 P.M.
	Chemical—Society of Arts, Adelphi.....	8 P.M.
	Medical—Bolt-court, Fleet-street.....	8 P.M.
	Pathological—21, Regent-street, Waterloo-place.....	8 P.M.
TUESDAY	Linnean—Soho-square.....	8 P.M.
	Horticultural—21, Regent-street.....	8 P.M.
	Civil Engineers—23, Great George-street.....	8 P.M.
WEDNESDAY	Geological—Somerset-house.....	8 P.M.
	Society of Arts—Adelphi.....	8 P.M.
THURSDAY	Royal—Somerset-house.....	8 P.M.
	Zoological—11, Hanover-square.....	3 P.M.
	Antiquaries—Somerset-house.....	8 P.M.
FRIDAY	Royal Institution—Albemarle-street.....	8 P.M.
	Botanical—30, Bedford-street, Covent-garden.....	8 P.M.
SATURDAY	Royal Botanic—Inner Circle, Regent's-park.....	3 P.M.
	Westminster Medical—17, Saville-row.....	8 P.M.

On Geological Chemistry.

DR. DAUBENY'S LECTURE AT THE ROYAL INSTITUTION, ALBEMARLE-STREET.

On Friday evening, March 24, the celebrated Dr. DAUBENY, Professor of Chemistry and Regius Professor of Botany at Oxford, whose recent elaborate and valuable work on the volcanic forces has attracted so much attention in the highest walks of science and literature, delivered a lecture at the Royal Institution, Albemarle-street, on "The Application of Chemical Principles to the Science of Geology." The spacious theatre of the institution was crowded with a most distinguished auditory, including some of the first men of science and learning of this day, and a considerable number of ladies and gentlemen, the elite of rank and fashion, amongst whom the proceedings seemed to excite the greatest interest.

The learned Doctor commenced his lecture with some preliminary observations, in which he said, he had for the last 12 months devoted his leisure to the accumulation and study of facts in relation to volcanic forces; and having, in this pursuit, travelled a good deal along the great boundary line dividing the two kingdoms of geology and chemistry, he had obtained glimpses of truths, which neither the pure chemist, nor the pure geologist might have had the same opportunities of observing—the result being, his entire acquiescence in the opinions of some of the greatest authorities of the present day, that geological inquiries ought, in future, to take more exclusively a chemical direction. The learned doctor then proceeded to allude to a subject of geological inquiry, which seemed to him above all others to demand the assistance of the chemist—namely, the metamorphic action which had taken place between certain contiguous but dissimilar rocks—the one of eruptive, the other of sedimentary origin. A large amount of information had been collected by geologists, in respect to different kinds of metamorphic action, and their effects; but as to the manner in which these effects were produced, they would look in vain, unless the chemist also were appealed to. One thing appeared to be established—namely, that the production of mineral veins was connected with the intrusion of plutonic rocks, and with the changes brought about by them in the contiguous strata.

Few metallic deposits occurred in the secondary formations, and even these only when there was dislocation or metamorphic action in their neighbourhood; while, on the other hand, metallic veins were never found in modern lavas, or in volcanic products that had been erupted in the open air, though several geologists had brought forward facts to prove a connection between metallic matter and basaltic or trappan dykes. There were various theories to account for the formation of mineral veins—the first supposed them to be the result of infiltration, the water which percolated the substance of the contiguous rocks carrying with it the several mineral matters they contained, and afterwards depositing them upon the walls of fissures caused by the contraction of the surrounding parts; the second supposed the materials of the vein to have been held in solution by water, but deposited in an insoluble form, owing to slow electro-chemical action; the third hypothesis assumed, that the contents of the vein, being separated from the other materials by sublimation, found their way into fissures, existing either in other parts of it, or in the contiguous formations. No doubt many facts might be alleged in favour of each hypothesis. In the first place, granting that a given rock contained, disseminated through it, any quantity of an oxidisable metal, such as iron, copper, lead, or tin, and that these were already in combination with sulphur, the action of water and air, by generating sulphuric acid, would gradually give rise to soluble sulphates, which might find their way into the contiguous fissures, where, owing to certain electrical or chemical reactions, the metals would be deposited in an insoluble form. Decomposition could be brought about by weak electrical currents; and thus the second hypothesis might be brought in to explain what was left unaccounted for by the first. But both presupposed the existence of metallic matter in the rock from which the veinstone was derived, for it was evident that these several metals could not be present, in the requisite quantity, in strata deposited from water, or all our mineral springs would contain traces of them, just as they did of the silica and other substances supplied by the rock through which they had been percolated. He could not, therefore, help supposing, that the mineral matters, which had been confined to the neighbourhood of plutonic rocks, were, in the first instance, derived by igneous agency, which constituted the machinery by means of which the more uncommon metals were brought originally from the depths to the surface of the earth. It was remarkable, however, that they were not confined to the intrusive rock itself, but, in many instances, were in the metamorphic strata contiguous. There was, also, evidently a connection between the metallic matter in the vein and the character of the enveloping rock, seemingly showing, that the ingredients of the former were not sublimed directly from the interior of the globe, but had been introduced from the formation in contact with the vein. Thus Fournet had stated, that at Andreasburg, in the Harz, the veins became poorer in metal when they passed from the clay-slate formation into the flinty-slate; and Völkner mentioned a vein in the Vosges which, in traversing successively different varieties of gneiss, had its contents modified in each. Thus, in the first variety, which was charged with mica, the vein was small in its dimensions, and wholly destitute of metal; in the second, which had more of the character of clay-slate, it swelled out to a width of 18 in., and contained silver, combined with antimony, copper, &c., together with sulphate of barytes; in the third, which contained hornblende, the former were wanting, but the last-mentioned ingredient continued; while, in the fourth, which was wholly destitute of mica, the silver returned for a certain distance down, but was afterwards replaced by selenite, galena, and sulphur, in small quantities. Sir H. de la Beche mentioned similar cases in Cornwall; and the frequency of their appearance compelled the admission, that the materials of the vein were, in many instances, at least, dependent upon the character of the rock which it traversed; so that, supposing them derived originally from the same igneous source, a process of segregation had subsequently taken place, by which particular bodies were determined to certain kinds of rock, to the abandonment of others.

In order to pave the way to a solution of these and other difficulties, he submitted two questions—the first, whether igneous rocks did not contain, disseminated through their substance, minute and, probably, infinitesimal quantities of many of those rarer bodies, which were found collected together in mineral veins?—and the second, whether all these substances might not possess a certain amount of volatility, at temperatures below their freezing point, and thus become transported from place to place, at periods long subsequent to that at which they were originally evolved from the interior of the earth, in a state of admixture with other more abundant ingredients? In adopting the affirmative, with reference to the former of these questions, it was not necessary to go so far as to assume, that every basaltic dyke, or even every great volcanic formation, contained, as an integral part, minute quantities of all the metals that existed in nature—for, considering how infinitely small was the proportion which they bore to the entire bulk of the crystalline igneous rocks, their absence could not be safely inferred from the fact of their not having been discovered. The facts which inclined him to suspect that they might exist, were the circumstances—first, that the discovery of phosphoric acid, in so large a number of volcanic products, led to the conclusion, that this body, at least, was derived from volcanic emanation, and, by analogy, that metals were also so derived; secondly, the observation made by Henry Rose, that in every crystalline rock traces of copper might be detected by the test of sulphuretted hydrogen—thus suggesting, that if we had any equally delicate test for the other metals, they also might be ascertained to be present; and, thirdly, the fact, that not only iron, arsenic, and selenium, existed amongst the products of Vesuvius, but likewise lead, copper, zinc, and titanium, while tinstone also was ejected by Mount Etna. Now, assuming the existence of metals, and other bodies of rare occurrence, amongst the matters evolved from the interior of the earth by igneous processes, the second hypothesis stated would enable us to account for the diffusion of such matters through the substance of the contiguous strata, as well as for their local accumulation in fissures, or veins; for it was evident, that if these bodies were severally capable of undergoing volatilisation, at temperatures below that of their fusion, the heat, which, originating in the intrusive rock, pervaded the formations contiguous for a great distance around, would drive out portions of all these substances, causing them to become disseminated throughout the latter, and, where fissures existed, to enter in, and contribute to fill them. For this purpose, however, the heat must be long continued, as well as of a certain intensity; and hence, whilst metallic veins were frequent in connection with granite, they were entirely absent from sub-aerial lavas, owing to the more rapidly cooling that would take place in the latter, than where the matter was thrown out under the sea, or at great depths beneath the surface. Thus, according to this theory, the accumulation of metallic matter in veins would have arisen, not from the latter having been the original receptacles of whatever was disengaged from the interior of the globe—for he agreed with Prof. Bischof, in considering that the idea of metallic, or indeed of any de-

scription of veins, being injected in a state of fusion from below, as trap and granite dykes were supposed to be, was encumbered with insuperable difficulties; but owing to the subsequent action of the heat upon the erupted matter, by which the metal might have been slowly volatilised, and thus have found its way into the fissures and cavities contiguous, when the principle of adhesive affinity, described by Prof. Berthier in his *Mémoire de la Limite de Fusion*, would come into play; and no sooner was a thin layer of a metallic, or other body, collected along the walls of a cavity, than the portions subsequently sublimated would be determined to the same point, until the whole cavity was filled up.

The learned professor also alluded to Tilgman's discovery with regard to the decomposing influence of steam at high temperatures, which accounted for the decomposition of many rocks, and the formation of combinations between the alkalis and fixed acids. Various facts also proved that a certain exaltation of temperature would favour the segregation and new combination of minerals, though that was not essential. To influences of this kind such formations as that of nodules of flint in chalk had been referred, but he thought it more probable that the deposition of silica was the result of the extraction of carbonic acid by the decomposition of animal matter.

He, therefore, suggested the importance of ascertaining by more precise experiments what were the laws which regulated the vaporisation of solids at temperatures below that at which they were fusible. Assuming the truth of this principle, it threw considerable light upon the alterations which contiguous strata underwent from the intrusive rocks—for, the supposing a certain degree of mobility to be produced by heat, without actual fusion, would enable us to understand these changes. The learned lecturer then proceeded to discuss the difficult question of dolomitisation, which he contended might be solved by a reference to the same principles, aided by analogous facts known to chemists, with respect to carbon and other substances. The whole question, however, appeared to be open to further inquiry, both as to the degree of volatility possessed by magnesia and its several combinations, its power of penetrating the substance of a calcareous rock, and combining with its ingredients in atomic proportions—neither body being in a state of absolute fluidity—its transmissibility to great distances through an intervening mass of rock, and the circumstances which caused it to accumulate in certain sets of beds, and to pass over others. Experiments should, likewise, be made as to the changes which augitic rocks sustain under the influence of a high temperature, and as to the possible disengagement from them of magnesia under the circumstances supposed; nor was chemical research less called into request, for the purpose of enabling us to explain such phenomena as were produced by igneous causes at the present day, than for the elucidation of processes of higher antiquity. When he reflected upon the assemblage of chemical phenomena which presented themselves during the several phases of volcanic action—the enormous and long-continued evolution of carbonic acid—the inexhaustible supplies of sulphur, arising from deposits, originally caused by the decomposition of sulphuretted hydrogen—the volumes of steam and muriatic acid disengaged by those volcanoes which were in a state of activity—the sublimations of common salt, sal ammoniac, &c., which generally accompanied an eruption—the nitrogen gas evolved incessantly for centuries from many thermal springs—when he saw these, and other results of internal chemical action, come so prominently into view in every part of the world where opportunities for studying the operations of internal heat were presented, it did excite his surprise that philosophers of high name should have rested content with a theory which professed to ascribe everything to the mere protrusion of some of the fluid contents of the globe through parts of its crust, without regarding features so important, and apparently so essential, as those to which he had alluded.

He thought that much was to be learned, with respect to volcanoes, by minute chemical examinations of the solid products ejected, with a view of comparing their constitution one with another, and of the gases and vapours evolved before, at the time, and subsequently to, a volcanic crisis. The learned lecturer then referred to Prof. Abich's experiments with regard to feldspar and to the recent discoveries at Vesuvius, respecting the evolution of hydrogen from an active crater, and to the results which might be expected from further discoveries. In the meantime, even with our imperfect knowledge of these mysterious workings, we might obtain glimpses of a beautiful system of compensation—an adaptation of means to an end—which struck the observer all the more, when it was displayed, as in this case, in the midst of those terrible manifestations of irresistible force, which the workings of a volcano, or an earthquake, revealed. This was shown by the useful purposes performed on the surface of the globe by the carbonic acid evolved from its interior, and was also illustrated by the occurrence of metals in veins, and the diffusion of phosphates in minute quantities so generally through the strata. Had not this been the case, the former would not have become known to us, and the latter would not have been available for the nutrition of plants.

Such were a few of the facts to which he had been desirous of directing attention, by way of inducement to his auditory to pursue the science of geology with a frequent reference to chemical principles; and he wished to impress upon those just entering upon the study more particularly, the great truth, that in all kinds of research, chemistry was to be regarded as the grammar to the language of Nature—the key to unlock her most secret mysteries; and that those who were ambitious of following in the footsteps of the great men who had adorned, and still adorn, that noble institution, by fathoming the depths of some one of those sciences which were there cultivated—may, even those who, with humble aspirations, were content, like himself, to snatch a mere superficial glance of several—would ever find it impossible to proceed without its assistance. His own experience justified him in assuring his auditory, that whether their chief interest might chance to lie in physiology—vegetable or animal; in scientific husbandry; or in those cosmical phenomena which presented themselves to the explorer of mountainous regions—chemistry would suggest at once the right principles for interpreting the facts observed, as well as the soundest practical applications that admitted of being deduced from them.

The talented lecturer concluded amidst the enthusiastic plaudits of his auditory, and was immediately engaged by some of the scientific gentlemen who were present, in an animated discussion upon the novel points presented in this very interesting lecture.

INSTITUTION OF CIVIL ENGINEERS.

MARCH 28.—JOSHUA FIELD, Esq. (President), in the chair.

The paper read was "The Engineering of the Rhine and the Moselle," by Mr. G. B. W. Jackson, Assoc. Inst. C.E. This communication was written during a short visit made to Holland, for the purpose of inspecting personally the works with which the author had become familiar in the writings of Beaudemoulin, Vanden Bergh, Delafontaine, Hilbert, Krayenhoff, Ockhart, and Wiebeking. It commenced with tracing the geographical course of the Rhine from its source on the Bodensee, in the canton of the Grisons, to its numerous outfalls into the sea. It then treated at considerable length the geological character of the country through which the river and its branches thus traversed. The ancient works, as far back as the time of the Romans, were then briefly described, and the general state of the bed of the river, with the comparative levels, the inclination and the velocity of the stream, at the commencement of the modern works, were then laid down in a tabular form, as points of data; and then the capability of the Rhine for forming banks by warping, or depositing the matter held in suspension, was discussed. The remainder of the first part of the paper was then occupied by descriptions of the modes of straightening the bed of the river, and of constructing the dams, weirs, division arms, spurs, and shore works, and the method of blasting the rocks, which latter considerably impeded the course of the stream. Our limits will not permit us to follow the details of these works, which differ so essentially from any in our own country, but the whole proceedings appeared to be given with such precision, that the paper, when it is published at length, with the copious details with which it was illustrated, will form a most interesting portion of the minutes of proceedings. The second part of the paper, containing an account of the engineering works on the Moselle, compiled chiefly from a paper of Mr. Vanden Bergh, the eminent engineer, under whose direction the works had been executed, was reserved for reading at the meeting of Tuesday, April 4.

LEITH HARBOUR IMPROVEMENTS.—Operations are at present in progress for the removal of a portion of the massive sea wall which forms the northern boundary of the wet docks, Leith, preparatory to the commencement of the new dock for steam-vessels. Owing to the solid construction of the wall, its removal is a work of much difficulty; and the foundation stone of the new works will not, in all probability, be laid for a month or two. The improvements on the port are to be effected in terms of the bill, passed in the last session of Parliament, authorising the construction of extensive works, at the estimated cost of 185,000*l.*, which has been found necessary, in consequence of the want of accommodation for steam-boat and other traffic.—*North British Daily Mail.*

RAILWAY ECONOMY.—LONDON AND NORTH-WESTERN RAILWAY COMPANY.—This company will, in a few weeks, be in a position to supply the Camden-town and Euston-square stations and hotels with water from a well which they have sunk at the former place. They at present pay 400*l.* per annum for the water required at the Camden-town station, and which they are themselves at the expense of pumping out of the Regent's Canal. The sum asked to supply the Euston-square station is 700*l.* per annum, and for the water supplied to the hotels 100*l.* per annum is charged. The well in question has, with the pumps, mains, &c., cost about 3100*l.*, for which outlay the company will save 1200*l.* per annum.

RAILWAY BRIDGE AT FOLKESTONE.—The bridge recently constructed at a large outlay by the South-Eastern Railway Company, under their engineer, Mr. Bull, is about to assume a novel appearance. Several workmen, during the past week, have been engaged in erecting stages, &c., prior to the alteration of the principle—the ends of the bridge having dropped, so as to fail in acting upon the rollers provided for that purpose. It has been deemed expedient to suspend them by iron rods, so as to keep the sides and centre curved ribs in their respective places. When finished, the bridge may be aptly termed a swivel and suspension bridge.—*Canterbury Journal.*

CARRIAGE OF FISH ON RAILWAYS.—The Great Western Company are taking about 250*l.* per week for the carriage of fish, from the coast of Devon, for the London market.

Several plates of iron have recently been rolled at the Shrubbery Iron-Works, Wolverhampton, respectively weighing, when finished, 1680 lbs. each.

The Metallurgical Treatment of Ores.

(Continued from March 25.)—No. XV.

Marl Cupels.—At Freiberg, and also at Pöhlitz, marl cupels have been employed. The sifted, pulverised, and dried marl, is beaten and pressed on the sole of the cupel-furnace, and hollowed for the reception of the silver-lead, as already described. It is dried as carefully as possible, and its surface rubbed over with some powder, produced by the pulverisation of an old cupel. In case marl cannot be procured, a mixture of 27 parts of limestone, and five parts of clay, may be employed. When the cupel is properly dried, it is filled with lead, and gently heated—during which time, lighted wood is placed, not only on the hearth, but on the surface of the lead itself. The metal soon fuses; and, in about 10 minutes, is entirely fluid and bright. Soon after this, the first slags, or "abzugs," form, and are raked off from time to time. In about nine hours from this time, the "abstriches" appear; the blast is now increased, and fuel added gradually, the nature of the abstriches change, and, in about three hours, an inferior kind of litharge makes its appearance. The blast is now greatly augmented; but the fire is diminished, more lead in a solid state is added, and this addition continued every two hours, until from 100 cwts. to 102 cwts. of lead have been added. The litharge, at this time, becomes of fine quality, and may be collected until the following morning—supposing the operation to have been commenced on the previous morning. The fire is then gradually increased towards the end of the operation—so that the bath may always be in a state of fusion. At this time, the litharge which forms is not taken out of the cupel, but collected in a small cavity, scraped in the body of the cupel itself; and, about 35 hours after the commencement of the operation, the brightening takes place. Cold water is thrown on the cake of silver, which is then removed to the stockhouse. The silver-leads cupelled at Freiberg seldom contain more than 0.004 of silver, equal to about 309 oss. to the ton; in which case, however, a great deal of silver passes into the litharge. Rarely, also, is the richness less than 0.0035, equal to about 32 oss. per ton. Generally, the lead contains about 0.0062, equal to about 192 oss. per ton. This lead is picked from rich and poor leads, which are also either poor or rich in copper, the copper favours the scorification. The products obtained are, as usual, silver, litharge, abstriches, and slags, together with the cupel bottoms. The silver obtained in this operation is refined in cupels, formed with a mixture of one part of lime and two parts of hard-wood ash. This operation is made under an open chimney, by means of a horizontal blast. The chimney is furnished with condensation chambers. A wood fire is kept up, that the metal in the cupel is in a perfect and constant state of fusion; but the heat must only be urged to such a point as to produce the desired effect. The operator takes samples, from time to time, by means of a small curved rod, to which a small quantity of the silver in the bath attaches itself. The refining is completed when the silver, during cooling, runs uniformly from the rod, and, when cold, is of a perfectly white colour—the fire, during the whole of this operation, is managed exactly as in the assay of silver. When the silver, to be treated in the manner just described, contains much lead, copper is added to facilitate its oxidation; when, on the other hand, it contains much copper, lead is added. There are two condensing chambers, one above the other; and the powder (lead fume), which collects in them, is removed about every three months. The mean produce of silver in the powder in the large chamber is 35 oss. in the 112 lbs.; and that of the upper, from 7 to 14 oss. of silver to the same amount of powder. The comparative experiments to which marl cupels have been submitted, have given the following results:—A larger quantity of saleable litharge is produced, and thus a larger quantity of litharge for reduction. The cupel bottoms are diminished in like proportion—so that a part of the expense and loss of lead, connected with the treatment of cupel bottoms, is avoided. Besides these advantages, marl cupels furnish a larger quantity of silver, so much so, indeed, that this circumstance alone ought to decide in their favour. It is true, however, that the operation is slower, and that the quantity of fuel employed is slightly increased; but the difference is unimportant, and results, apparently of the slowness, is a more complete separation of litharge.

In our last week's Journal, we published a specification of a patent by Mr. Johnson, for a new method of treating cupel bottoms, in order to separate the lead and silver. To give more effect to the attention of our readers to this portion of our subject, we will now, however, return to the theory, which can explain the various facts observable during the operation of cupellation. The silver-leads submitted to this treatment are generally very impure, for the argentiferous galenas are themselves accompanied by a sufficiently heterogeneous mineral admixture. However, as even very impure leads can be cupelled, the operation of extracting that metal from its ores may be very advantageously carried on in the ordinary way, even at the risk of its contamination by other metals; for any processes which could be employed to separate them, would only unnecessarily complicate the operation of smelting.

In introducing the silver-lead into a cupel, the first effect of the fire is a true liquation (as explained in our pages on the treatment of lead ores), effecting the separation of a tolerably pure silver-lead from various sulphurets, which are less fusible, and specifically lighter than itself. These sulphurets swim on the surface of the molten lead, and are removed under the name of "abzugs," as before shown. The action of the blast now comes into play, oxidation commences; and in proportion as oxide of lead forms, it combines with acid sulphurets (sulphuric acid), as those of arsenic, or antimony, which have not been separated during the liquation. Hence, litharge, containing arsenic and antimony (sometimes as sulphurets, and, as the operation progresses, sometimes as oxides), is formed. This first litharge takes the name of "abstriche," or "black litharge." The following is an analysis, by Berthier, of a black litharge, formed at Pöhlitz:—Oxide of lead, 89.2; arseniated oxide of antimony, 5.8; oxide of iron, 0.6; clay, 4.4=100.0. As soon as the formation of abstriches ceases, marketable litharge is the produce. This, however, is not pure, for at this time the copper contained in the lead undergoes, in its turn, oxidation, so that the first portions of litharge contain copper.

The following is an analysis, by Berthier, of the "first litharge" produced at Pöhlitz:—Oxide of lead, 99.9; arseniated oxide of antimony, 1.1; oxide of copper traces; 100.0. But as the copper oxidises with greater facility than the lead, it can be readily perceived, that after a certain epoch in the operation, the litharge produced will be entirely free from copper. Towards the end of the cupellation a new variety of litharge is produced, known as "rich litharge;" it contains finely-divided metallic silver, and must be collected and reduced, in order to undergo a new cupellation. Lastly, during the whole time in which litharge is formed, traces of oxide of silver form also, which unite with the oxide of lead. This oxide of silver is found in all the products obtained from litharge, as sugar of lead, acetate of lead, carbonate of lead (white lead), and the waste sulphate of lead of the calcoprinters. As the composition of litharge varies according to the time in the operation at which it was formed, so do the volatilised products forming the "fume," at corresponding times of their formation. During the formation of abstriche the fume is white, and consists essentially of sulphate and arseniate of lead. During the formation of litharge, it is nearly pure oxide of lead which collects. Berthier has analysed the fumes produced at Pöhlitz; this was white fume. Sulphate of lead, 20; arseniate of lead, 10; carbonate of lead, 33; clay, 20; carbonate of lime, 31.7=100. The two last-mentioned bodies are accidental, and proceed from the wall of the condensing chamber, from which they were detached during the collection of the lead deposit. The carbonate of lead is formed by the action of the carbonic acid of the surrounding atmosphere on the oxide of lead as it is volatilised.

Treatment of Argentiferous Copper—Liquation.—In the following methods, the copper is generally present in such small proportions, that the amount is disregarded; sometimes, however, compounds are treated, in which so much copper exists, that it is advantageous to work them for copper and silver. If, for instance, the extraction of the silver is in itself sufficient to cover the cost, it follows that the copper, if susceptible of being extracted in considerable quantity, may be yet made another source of profit. From the above it will be seen, that the treatment of such silver ores can be divided into two distinct classes—the one containing ores poor in copper, in which the production of that metal would be regarded but as accidental; and the other containing rich copper ores, and in which the production of copper would be considered as indispensable. Argentiferous copper is sometimes produced from the latter class of ores; at other times, such copper forms commercial alloys, from which the silver is often separated. This operation, however, is foreign to our present purpose—we intend now to confine ourselves to the treatment of alloys, or what may be called, in reference to the mode of its formation, "natural argentiferous copper." We shall take the most complicated case, and shall successively examine the various methods in use. It is evident that the complete treatment of an argentiferous copper ore must offer more difficulties than any alloy whatever. After this part of the subject has been fully discussed, we shall point out the more simple methods by which the silver and copper can be separated in ordinary alloys. When copper ores contain a sufficient quantity of sulphur to allow it to be melted, the silver is extracted with advantage, the matt, or black copper, resulting from its treatment, is worked by liquation, or even by amalgamation. M. Manès has described these operations, with great care, in the 9th vol. of the *Annales des Mines*, and from which paper a considerable portion of the following is extracted. In various parts of Mansfeld are found many ores, which can be divided into three classes, according to their contents in silver. Very bituminous argillaceous schists are worked at Mansfeld; indeed, some of them so bituminous as to burn without the addition of fuel. Besides argillaceous, calcareous, and ferruginous gangues, in variable proportions, these schists contain copper pyrites, sulphurets of copper, and sometimes finely divided and disseminated argentiferous cobalt ores. The amount of silver contained in the rough ore is from 1-10,000th of its weight. These schists, exposed to the action of heat in close vessels, give water, bituminous oils, and sulphur; by roasting, they furnish sulphurous acid, mixed with bituminous vapours, and lose their black colour, taking a bright reddish-brown appearance. Berthier gives the following analysis of the rough Mansfeld ore:—Silica, 40.00; alumina, 10.70; oxide of iron, 5.40; carbonate of lime, 19.50; carbonate of magnesia, 6.00; copper pyrites, 6.00; potash, 2.00; water and bitumen, 10.30=100.00.

This analysis is only useful in giving a general idea of the composition of the ore; for it is evident that it must vary very considerably. It is, moreover, nearly useless to make observations on small quantities; in which the amount of silver cannot be accurately determined, as is evident by this analysis; for Berthier does not notice the presence of silver. It could, however, be readily ascertained by assay. In working these schists, it is usual to roast them, in order to drive off bitumen before fusion—having been observed, that the presence of bitumen is prejudicial to the latter process. The schists of a calcareous argillaceous, and ferruginous nature, are roasted separately—the operation being carried on in a free circulation of air. About 200 tons are roasted at once; and the operation lasts from four to six weeks, and the ore loses about one-eighth of its weight by roasting. In order to determine the changes which take place in the composition of the ore during this process, the following analyses of the roasted ore were made by Berthier:—

	First.	Second.
Silica	50.6	43.8
Alumina, magnesia	23.4	17.9
Lime	7.0	17.0
Oxide of iron	2.8	2.5
Oxide of iron	9.0	7.2
Sulphur	4.0	2.4
Loss by calcination	0.9	6.0
	104.4	97.1

The roasting then removes water, bitumen, the greater part of the carbonic acid, and a portion of calcareous matter. The roasted schists are fused in a slag hearth, furnished with two tuyères, and are thus disposed in separate layers:—30 cwts. of ferruginous schist; 14 cwts. calcareous ditto; 6 cwts. argillaceous ditto; 2 cwts. dross, or scales; 3 to 3½ cwts. fluor-spar; 3 cwts. rich slag—45 cwts. The furnace being heated, it is half filled with charcoal, and the charge commenced by adding the slag. When the hearth is full, the blast is let on, and the ore added; the charges are then proportioned, according to whether coke or charcoal is burnt. If charcoal, 30 lbs. of charcoal, 150 lbs. schist, 75 lbs. coke, or 160 lbs. schist. The fusion lasts 16 hours, and furnishes, when charcoal is used, 3½ cwts. of copper matt containing from 44 to 45 per cent. of copper, 1 cwt. "iron lumps," cwt. of slag, 4 cwt. of dross. The fusion with coke does not last as long, and furnishes less iron lumps. The matt and slag separate in the receiving basins. To give an exact idea of this operation, each of these products will be examined. The analyses are by Berthier. The matt is composed of copper, 88.6; iron, 13.2; sulphur, 32.2; sand, 0.6=100.0; or sulphurets of copper, 77; sulphurets of iron, 31=98. The composition of the "iron lumps" is remarkable; they contain—iron, 98.4; cobalt, 7.6; copper, 2.0; sulphur, 1.8. All the cobalt contained in the ore accumulates in the lumps. The following is the composition of the scoria, or slag:—Silica, 49.8; alumina, 12.2; lime, 19.7; magnesia, 7.4; protoxide of iron, 13.2; fluoric acid, 1.2; alkali and loss, 2.0=100.0.

From these analyses, we see the principal products of fusion are earthy and ferruginous silicates, an alloy of iron, and cobalt, containing a little copper; and, lastly, a mixture of sulphur of iron and sulphur of copper. The addition of fluoride of calcium (fluor spar) increases the fusibility of the slag, either by its own fusibility, or by furnishing lime to the silica, by its transformation into fluo-silicic acid, which is disengaged, and silicate of lime, which is left.

[In the Mining Journal of Saturday next, we propose to continue an account of this interesting portion of our subject.]

THE RAILWAY GAUGE QUESTION.

[FROM A CORRESPONDENT.]

As the question relating to the gauges is creating such intense interest and rivalry amongst railway circles, it may, perhaps, be interesting to the public, if we offer to it a few remarks with reference to the introduction of the 4 ft. 8½ in. gauge. It is established, beyond all doubt, that the above-mentioned gauge is attended with many disadvantages, to which that of 5 ft. 2 in. is not liable; and, had such been the established gauge of this country, as it is in Ireland, many inconveniences would have been obviated, which now exist in the working of railway lines. It has been frequently asserted, that Messrs. George and Robert Stephenson were the originators of this gauge—true it is that they adopted it, but equally untrue that they invented it. The 4 ft. 8½ in. gauge was employed in the collieries of Newcastle to a great extent, for many years before the introduction of steam for railway transit—and, consequently, was the uniform gauge of these large mining districts for the conveyance of coals, &c. There is but little doubt, that when this 4 ft. 8½ in. gauge was first used in the northern districts, no idea was ever entertained as to its universal extension, as a national gauge. But, in the first place, we can confidently state, that the rails were laid down, without reference to measurements, and the carriages made to suit the gauge. Messrs. Stephenson, being well aware to what extent this gauge was adopted in mining districts by proprietors (and also of the great and serious loss which would necessarily attend the breaking up of the old gauge), although they did not recommend the alteration of those lines already established, still preferred and used the 4 ft. 8½ in. gauge for all lines which were constructed under their own superintendence. Again, if Messrs. Stephenson had introduced a 5 ft. 2 in. gauge, it would have either caused a great deal of loading and unloading of the coals intended to be carried per rail; or the owners must have encountered a serious expense, and much inconvenience, in altering the rails already laid down in the north of England; but, by adopting the above-mentioned gauge, all this unnecessary expense was avoided; and, as soon as Messrs. Stephenson's lines were opened and connected with those previously established, the coals were conveyed along the lines without interruption. Had Mr. Brunel regarded the gauges in the same manner as the Messrs. Stephenson, how much better would have been the position of the Great Western Company at the present time?—now forcibly reminding one of an isolated river, divested of all tributary streams. It would be much more advantageous to the interest of the Great Western Company, and tend also to the convenience of the public at large, if they would submit to the *vox populi*, and alter their gauge; for, although such a course would compel them to be contented with a lesser dividend for a time, even that would be preferable to their present isolation, and, there is too much reason to fear, consequent ruin.—C. E.

NEW AND POWERFUL NARROW-GAUGE LOCOMOTIVE.—A new locomotive, of somewhat unusual dimensions, is in the course of construction at the London and North-Western Company's Works at Wolverton. Whatever merit may be found to attach to the plan of the engine will, we believe, belong to Mr. McConnell, the locomotive superintendent of the London and North-Western Railway. One of the difficulties against which the narrow-gauge engineers have had to contend, in their endeavours to compete with the powerful engines belonging to the Great Western Company, has been the comparatively circumscribed width of the fire-box. To obviate this difficulty, Mr. McConnell has departed from the ordinary mode of keeping the fire-box within the width of the gauge (4 ft. 8½ in.)—or, in fact, transversely within the wheels. He gives a bearing of 10 ft. 6 in. between his trailing and driving-wheels, and allows his fire-box to overhang the rails. He has chosen to make his fire-box 5 ft. 9½ in. so that it overhangs the metal about 7 in. on either side. The distance between the driving-wheels is 6 ft. 6 in.; therefore, the distance between the extreme bearings is 17 ft. 3 in. The fire-box is 5 ft. 5 in. high, and of precisely the same length. The boiler is 4 ft. 3 in. diameter on the outside, and has 190 tubes of 3 in. diameter inside, and 19 ft. 7 in. long. The most remarkable feature about the engine is the extraordinary, and, as it seems to us, hazardous distance between the centres of the cylinders, which are outside ones. These are fixed parallel with the sides of the smoke-box (itself 4 ft. 11½ in. wide), and the centres of them are 7 ft. 6 in. apart from each other—so that the extreme breadth of this new engine will be something like 9 ft. 4 in., on a gauge of 4 ft. 8½ in. The driving-wheels are 6 ft. 6 in. in diameter, the cylinder 18 in., and the stroke 20 in. The top of the boiler is 7 ft. 9 in. from the rail. The question is—Will such an engine as this run steadily at high velocities? Mr. McConnell is of opinion it will. We are of opinion that it will not. Report speaks of some extraordinary rates of speed having been attained with light trains attached to another new passenger-engine, built by Wilson and Co., of Leeds. The engine has four wheels, of 7 ft. diameter, and works with a shaft, and not a crank axle. This mode of construction has enabled the patentees to bring the cylinders within 12 in. of the road. We question the safety of very high speeds with leading wheels of 7 ft. diameter. We do not urge this as an objection to Messrs. Wilson and Co.'s engine, because an additional pair of wheels of less diameter might be added as leading wheels. Our information is, that the engine can maintain a speed of 74 miles per hour with a train of six carriages, or 30 tons. We think that this is a mistake, and that the rate of speed has been incorrectly taken. It is probable that we shall shortly have an opportunity of testing the speed and power of this engine with a train of 10 or 12 carriages, which we recommend Messrs. Wilson and Co. to attach to her. Six carriages are not a fair average working train.—*Morning Herald*.

IMPROVEMENTS IN THE STEAM-ENGINE.—In the *Mining Journal* of the 16th Oct. last, we inserted an article from the *Midland Counties Herald*, descriptive of the nature of certain improvements in the steam-engine, which had been then just patented by M. Rémond, of Great Charles-street, Birmingham, explaining, that the object aimed at by the inventor, was to get rid of the back action, which, in engines of the ordinary construction, causes a loss of power to the extent, it is calculated, of 40 per cent. We stated, that the working of a model engine, embodying the principle of the patent, gave some highly-important results as to saving of steam and economy of fuel—that, with half the ordinary amount of steam, the work done was increased nearly 50 per cent. The *Midland Counties Herald* of Thursday last says—"Within the last few days, we have inspected an engine, to which the patent has been adapted, at the mill of Messrs. Beale, of Bradford-street, who state, that the advantages held out by M. Rémond have been fully realised. The engine drives four pairs of stones, for grinding corn, splitting beans, &c. Originally it had a cylinder of 16½ in. diameter, which was replaced by one of only 10 in. diameter; yet, by means of M. Rémond's patent valves, the power was increased from 12 to 24-horse (as tested by Macnaught's indicator); while the cost of fuel was reduced from 30s. to less than 20s. per week. The pressure used was 38 lbs. on the inch. The difference in the work of the two methods is stated to be very great—for, when the engine was in its original state, there was a sluggish motion in passing the centres; the movement is now smooth, easy, and regular. The engine may be seen at work upon the premises of Messrs. Beale, who, we believe, have courteously offered to afford any information to those who take an interest in the matter. We must not omit to mention that the patentee states, that in the course of a few weeks, he will be able to reduce the consumption of fuel still further; and as his patent may be adapted to a comparatively small expense to all descriptions of engines—whether land, locomotive, or marine—its importance in steam navigation, both as to the cost and stowage of fuel, will be at once apparent." We copy the following paragraph, relative to the nature and results of the patent here spoken of, from the *Belgian paper, La Tribune*, published at Liege, on the 8th of March:—"Last year the *Moniteur Industriel* of Liege had noticed two small model steam-engines, of 2 and 14-horse power, with new valves, patented in Belgium. Official experiments made then, by order of the Government, had proved an economy of 30 per cent. upon all the systems known and in practice. These happy results, obtained with models of so small a power, led us to hope, that the inventor could furnish for sale steam-engines of every system and every power, consuming 1 lb. of fuel only 3½ lbs. per horse-power per hour; whilst every other system consumes from 7 to 14 lbs. in an equal space of time and equal power. These hopes have been fully realised, and even surpassed, by the starting, in one of our manufactories, of a third machine, of 40-horse power, with the improved independent valves, which renders impossible the compression of steam behind the pistons (back pressure), a problem, the solution of which has long been sought for, and resolved to-day. To say that this useful invention can be applied to old engines, land, locomotive, or marine—and at a trifling cost, is, we believe, to render a veritable service to our industry. Independently of the economical advantages procured by the new system of valves, they ensure also to the engine a movement more smooth and regular."

SUGGESTED IMPROVEMENTS IN MACHINERY.—From observations made during a recent visit to Birmingham, I am convinced in my presupposed opinion, that the vibratory motion of the engine, and also of the train of carriages, is not only detrimental to the speed, but also tends very much to assist any trifling impediment on the rails to throw the engine and train off the line. This motion is caused by the weight of the boiler and heavy apparatus appertaining to the engine (and the same objection is to be found with the carriages) being placed above the axletrees, instead of being brought as close to the base as possible, it being the centre of gravity vibrating from the base which causes this at all times disagreeable and frequently highly-dangerous motion. To obviate this, I should recommend, in regard to the engine, that the boiler should be situated entirely beneath the working shaft, and that the cylinders, pistons, &c., should be placed above the boiler, in a horizontal position. It will be evident from this arrangement of the machinery that the working wheels, as they are technically called, are those wheels which are impelled by the direct communication of the connecting-rod to the crank shaft affixed to them, may be considerably enlarged, say double the size they at present are—(viz., 5 ft.)—with ease, or even more; but, for arrangement—in the first place, in the old form of engine—that is to say, the one at present used—a wheel of 5 ft. diameter will pass over, in one revolution, somewhere about 15 ft.; this engine can be made to travel, with difficulty, with a train, at 40 miles an hour, the friction above that rate becoming so great that they find it impossible to exceed it. Now, if the wheels were 10 ft. in diameter, in two strokes of the pistons the engine would pass over a space of nearly 30 ft., or double that of the small wheel; it is, therefore, evident that this description of engine would be able to travel at the rate of 80 miles an hour

before the friction amounts to the same as in the present form of engine travelling at the rate of 40 miles an hour. The only objection I can discover to this form is, that the undulating (not the vibrating) motion would be found more disagreeable than on the old plan. In another part of this sheet I shall endeavour to obviate this defect; but it must not be overlooked that there will be no vibratory motion at all, even at the great speed of 80 miles an hour, and that this engine will perform 30 miles an hour with the same facility, or even with greater, than the present engine would do. The water tank on the tender attached to the engine should also be placed beneath the axletrees (the axletrees of the tender of course), and the body of the passenger cars should also be placed as much below the axletrees as possible, say to within 6 in. off the road or level of the rail. The wheels of the passenger cars and tender should be increased in size, say 5 ft. for the minimum. It is very clear that the friction in such an engine, and with such a train, will be at least much less, even if nothing else is gained, than in an engine, and with a train of passenger cars, on the present construction. The cause of the undulating motion in all railway engines and carriages at present used—in applying the word undulating, I wish to express that motion which the carriages and engine have from side to side of the road, at least so far as the flanges on the wheels will permit this digression from a perfectly true or straight course, keeping in view, as a matter of necessity, the turns of the road—is in consequence of the wheels being flanged on the inner side or tire of the wheel only, and thus causing the carriage, engine, or whatever wheeled conveyance it may be, to be continually undulating, or the flanges of the wheels on one side of the carriage acting at one moment on the rail it is in contact with, and at another the flanges of the wheels on the opposite side acting on the other rail, and thus the motion is caused. To obviate this, both sides of the wheels should be flanged, both inner and outer, and the wheels to rest on the rails in the vacant space between; this will entirely, or almost so, preclude the friction which is so very great, and so very heavy a drawback on the form of wheel now used with respect to the speed. The safety of the engine and carriages will likewise be much enhanced, as the wheels, being flanged on both sides, will render it almost impossible that the engine or train should run off the rails.—J. M.: *Rock Ferry, March 27.*

EAST INDIAN RAILWAY.—Upon this important subject we have now very full and definite accounts. By the last mail, it was officially announced, that the committee in India had acted with promptitude and decision, upon the receipt of the intelligence from home of the altered state of the money market, and its possible influence upon the company's proceedings. It appears that the committee have taken a course, which, of all others, was the most prudent, and certain to secure the approval of the directors and their proprietors, as well as to protect the undertaking from any risk of being otherwise affected than by the delay and loss of time which could not be avoided. These measures, for which the greatest credit is due, appear to have been the immediate cessation of all active works—expenses stopped—the engagements with the staff compromised by mutual consent—the committee having themselves taken the initiative, by offering to receive, under the circumstances, reduced salaries; and the company hereby placed in the most advantageous position, at the least possible cost, to take full advantage of an amended state of affairs. Advantage, it is understood, has also been taken of the interruption in the progress of the works, to call the attention of Government to the several minor points in the proposed contract, which were to be left for decision by the local Government; and it is believed, that the revision of all the conditions will lead to even more favourable terms being conceded by the Court of Directors, should they, upon consideration of the altered circumstances in which all parties are placed, deem such alteration to be essential to the accomplishment of the object in view. The East India Company have shown themselves fully sensible of the importance of railway communication being early introduced into India, and no apprehension need be entertained but that any reasonable measures will be sanctioned which can remove the obstacles to its attainment. The subject, as has already been observed, is not one of private interest, or personal consideration, but a national undertaking, in which there are very few who have not a direct or indirect interest.

GRAVESEND AND MILTON RAILWAY.—This work, at Gravesend, and its neighbourhood, is progressing rapidly, and the cutting through the town will be completed in a few weeks, if we may judge from its present progress. We learn that a temporary station will be erected in the heart of the town for carriages between Gravesend and Chatham, as the present station is at a very inconvenient distance. We have been informed, that the whole line will be open from Chatham to Greenwich by the end of August; but this may reasonably be doubted, seeing that there is a vast portion of the line between Gravesend and Greenwich to be yet completed.—*Maidstone Journal*.

SOUTH DEVON RAILWAY.—The uprights for the electric telegraph are in the course of erection between Totnes and Marley, and the workmen on the line are in full employment; still there is much work to do before the line will be ready for opening. It has been stated, by those well conversant with the subject, for some weeks past, that the opening to Laira will not take place until the 1st of June next.

VAN DIEMEN'S LAND COMPANY.—The annual meeting of this company was held at the offices, Great Winchester-street, City, on Friday, the 31st ult.—J. CATTLEY, Esq., in the chair.—The SECRETARY (Mr. Hewett) read the report, which was, on the whole, more favourable than on former occasions, more particularly from the circumstance, that after March, 1849, the directors would be relieved from their contract of taking the tenants' produce at fixed prices, which plan had caused a serious annual loss to the company. The company had also now free possession of their lands from the Crown, so that they would be able to embrace offers for disposing of their lands as opportunities occurred. The demand for the company's live stock had gradually increased, the sales during the year 1846 having produced 17422. 13s. 11d. The clip of wool for the year 1846 amounted to 81 bales, and netted at public auction 10032. 14s. 10d. The township of Stanley was progressing; an extraordinary demand for labour in New South Wales, and for the mining operations of South Australia, had induced many of the free labourers to leave Van Diemen's Land. The want of labourers was great in the colony, and the price of produce consequently low.

SANITARY REFORM—SEWAGE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I am much obliged by your inserting my letter in your Journal of the 26th of Feb., and have read with much interest, in your subsequent publications, the correspondence of Mr. Radley and Mr. Wickstead, the latter gentleman's further elucidating the scheme about which I addressed you, and inclosing his reports, as requested by Mr. Radley. Instead of indulging so frequently in Latin expressions, which I apprehend the public generally will scarcely understand, and therefore, not be greatly benefited by, I fully expected from Mr. Radley's letter, which appeared in your Journal of the 4th inst., that gentleman (as I presume that Mr. Wickstead's reports were forwarded to him) would have shown, as he engaged to do, the illegibility, in a general sense, of the plan proposed to the London Sewage Company, and, ere this, have favoured the public with his own one-sided notion (for, as he states, "all schemes may, more or less, be that emanate from the brain or brains of one, or of a very limited sodality of mere wisecracks") of a method of sewage disposal, which, in his opinion, would be greatly improved by the use of the cheapness, however, there appears to be some doubt; but, notwithstanding the enticing assurance of 27 per cent. profits in prospect, it is not very clear whether the 1,000,000. sterling will be required for 1-4th or 1-20th of the metropolis in the first instance. With regard to his impugning the accuracy of the *Times* Journal, respecting the sewers exhaling the most malignant and poisonous effluvia, it is unnecessary for me to do more than refer your readers to the evidence received by the Sanitary Commission, to show that the facts are fully confirmed, and that the statements in the *Times*, above referred to, and that the opinions of Mr. Radley on the metropolis are completely erroneous. But feeling, as I stated in my former letter, considerable interest in the question of an efficient drainage of the metropolis, I am somewhat disappointed at Mr. Radley's not producing his promised method, although, from the statements he has already made, I am of opinion that it would not be generally approved of by the public. Statistics clearly prove, beyond all doubt, the fearful difference in the mortality of those places which are properly drained, and those which are not; and how very much the health, and even the lives, of the inhabitants, are affected by the system which is adopted. But, as I have already stated, your notice is, I firmly believe, far the best that has yet been proposed to effect this desirable and important object; it can, I think, be easily and readily understood by all; it embraces the whole of the metropolis, on both sides of the river (none of the other schemes even profess to do this); and the cost is guaranteed; and I most sincerely hope that it will meet with such encouragement and support, as will enable the projector forthwith to commence operations, and, as soon as practicable, complete them. I should have been glad to have seen Mr. Radley make a few observations upon what took place at a general meeting of the Metropolitan Commissioners of Sewers, as reported in the *Builder* of the 18th inst. It is there stated, with regard to an application of the Great London Drainage Company, for permissive powers from the commission, "That the bill of the Great London Drainage Company, now before the House, would entirely appropriate to this private company, without any compensation, the whole produce of the metropolis sewers. That this bill would have the effect of entirely superseding the Metropolitan Commissioners of Sewers. That, in the opinion of this commission, no plan of applying the contents of the Metropolitan sewers ought to be entertained, but the general survey and levels have been completed. Mr. Chadwick, in support of these resolutions, said, it was fortunate for the shareholders in this and similar schemes, that an intervention had been carried on through the powers of this court. By this plan, the directors proposed to realise a profit of 50,000. by the refuse of towns; and this was to be done without any return or compensation whatever to the rate-payers. One of the companies proposed the abrogation of two main lines of sewers, through a district where the properties of sewage matter was only 1 to 400 of water, and this produce was to be applied to land already overcharged with water. The machinery, too, proposed for effecting this object, was excessively expensive, as the estimated cost of one tunnel was 25,000.; whereas it appeared by the evidence of their own surveyor, that even this could be done at something less than 7000. The shareholders, therefore, ought to felicitate themselves on the stoppage thus given to wasteful expenditure."

It certainly seems somewhat singular, that all the commissions of sewers hitherto appointed have not only allowed the sewage to run, to waste in the river, to the gross pollution of it, and the manifest injury of those who are so unfortunate as to be compelled to live near to, and drink the water from it—but that the chief and, indeed, only object of the commissioners has apparently been to adopt the best and most effectual means which have been pointed out to them to have the sewers discharged there; now, however, that a company proposes to free the river from the filthy impurity, and otherwise greatly conduce to the health of the inhabitants, by completely and efficiently draining the metropolis, holding out, as an inducement to capitalists to take shares, the prospect of a percentage in return, the commissioners attempt to throw obstacles in the way, by professing to have the pockets of the rate-payers deeply at heart. These professions would, perhaps, sound very well, were it not also stated, in the same resolutions, "That this bill would have the effect of entirely superseding the Metropolitan Commissioners of Sewers"—thereby clearly showing, that the commissioners feel some small degree of interest for themselves, in addition to their kindly feeling for the interests of the rate-payers. There is no doubt, however, that the commissioners have done a great deal of good, and might continue to do so, if they were usually employed, even were this drained into a lake.

Doubtless, it would be a most desirable thing to have the rates reduced as much as possible—although I believe that the majority of the rate-payers would willingly, if need be, pay their present rates, if they found that a great and most important benefit was being conferred upon them; yet, even to this important advantage, the Great London Drainage Company's scheme would greatly contribute—for Mr. Wickstead, in his letter to you of the 7th March, states, that "the advantage the public will derive, from the adoption of

my plan, will be, not only the riddance of a great nuisance, but also a great reduction in future sewer-rates; for, as my outfall for the sewers will be 29 ft. below the bottom of the present Ranelagh sewer, and 20 ft. 6 in. below low-water mark at Woolwich, all future sewers may be made of less dimensions than those which have hitherto been constructed, because a much greater fall will be secured; indeed, as a constant run will thus be secured, it is evident that such must be the case.

It is not, however, my present intention to discuss the question of rates or profits, but simply to consider the measure as a sanitary one; and, so that it be carried out, I am convinced the public will not care one straw whether it be effected by a company, or the Metropolitan Commissioners of Sewers; but I do not think it necessary to wait, perhaps for several years, until the general survey and levels have been completed, before commencing with a scheme which, for all our sakes, cannot be too soon put in operation. As, however, from the account in the *Builder*, it may not appear very clear to those not acquainted with the different schemes, whether the proposed application of sewage water to land already overcharged with water, at an expense for one tunnel of 25,000., or something less than 7000., as given in evidence by their own surveyors, forms part of the Great London Drainage Company's plan, or not, I think it right to mention that the reports to the London Sewage Company (or, as it is now called, the Great London Drainage Company), as strongly expose the absurdity of attempting such an application of the sewage matter as Mr. Chadwick can possibly do; in fact, it would be utterly impossible so to apply it.—X. Z.: *London, March 28.*

Mining Correspondence.

ENGLISH MINES.

ANTIMONY AND SILVER-LEAD.—We are still sinking on the lode, and raising stones of solid antimony, from 300 to 400 lbs. weight each; the lode carries two regular walls, and underlays about 1½ ft. in a fm.; we have costained on the back of this lode for upwards of 50 fms., and find it a regular lode, and no deposit of ore; there is fine gossan on the backs, together with stones of antimony. We have also traced the silver-lead lode, which they are working at Wheal Sarah Mine, through our sett for one mile; and it is the opinion of practical miners, that this lode will prove productive.—March 27.

BARRISTOWN.—We have had no change during the last week in the old mine. In the adit end east, the lode is producing about 15 cwt. ore per fm.; the back of the level, behind the end, about 10 cwt. We shall commence to draw the water out of Nangle's, with barrels, on Monday next, which will enable us the more quickly to communicate the adit level with those workings.—March 24.

BEDFORD UNITED.—At Wheal Marquis, the lode in the 90 fm. level, east of the sump winze, is 3 ft. wide, and worth 30l. per fm.; in this level west there has been no lode taken down; in the rise, in the back of the 90 fm. level east, the lode is 2 ft. wide, producing good saving work; the lode in the stopes, in the back of the 90 fm. level west, is worth 12l. per fm. The lode in the 80 fm. level east is 2 ft. wide, producing good stones of ore. There has been no lode taken down in the 70 fm. level east; in this level west, on the south lode, the lode is without alteration. We have suspended the winze in the 47 fm. level west, on the south lode; and the men are put in the rise in the back of the 90 fm. level east. The lode in the 25 fm. level, east of the south engine-shaft, and in the adit level east, on this lode, remains without alteration.—March 29.

COATLITHE HILLS.—During this week, the men have been employed in sinking the winze from the bottom of the level, north of the Horse level; but, in consequence of the position of the vein having been altered a little on coming into the hard stratum, we have not been able to see much of it yet; but I hope to send you all particulars about it when I next write.

COOMBLAWN.—We are getting on as well as can be expected; the shaft-men have taken out penthouse, cased down the shaft, put in footway, shaft collar, &c., and driven 9 ft. towards the lode in the 20 fm. level. We have some difficulties to contend with—too much water underground, and not a sufficient quantity at the surface, to enable us to work as we would wish; however, amidst these difficulties, we hope to be able to cut the lode before the dry weather entirely sets in. We are at present obliged to work in the bottom level by day, for there we have the surface water from the reservoirs at the Callington Mines, and I propose setting the shaft to sink on the main lode, so that our nightmen may be kept at work; this will be proving the lode as we go down, and, at the same time, we shall not be augmenting our monthly cost. The ground in the cross-cut, in the 20, is not hard for driving, but very wet and troublesome; there are branches of spar, containing mudiic, blende, and spots of lead, crossing the end in different directions. The ground in the shaft, on the main lode, is favourable for sinking, price about 55s. per fm., the lode small, but very promising; and I expect, from present appearances, that we shall raise some good ore in sinking on the lode. We have not as yet cut the cross-course, east of workings at the old mine, still we are shodding in that direction in search of it.—March 28.

CWM ERFIN.—The stopes west of the whim-shaft we have finished—that is, taken down the side; but the ore is still going up in the back, where there will be plenty of ground to take away, worth half a ton of ore per fm., at present. The lode looks very well to the east of whim-shaft; it is a strong lode, and likely to continue, worth one ton of ore per fm. The stope in the bottom of the level, west of engine-shaft, is also turning out good ore—worth 1 ton to the fm. The other work is going on just as last week. I shall very soon begin to wash some ore at the whim-shaft, to get it ready for the crusher.

DEAN PRIOR AND BUCKFASTLEIGH.—The cross-cut in the 30 fm. level is being driven 3 fms., and set to drive 3 fms. further south, to cut the lode, at 6l. per fm.; I expect it will take three weeks to intersect the lode. We have not yet cut the north wall of the lode in the 20 fm. level, but have given directions to do so, by gaining north as we proceed west; probably, in the course of next week, the size and quality of the lode can be reported on more satisfactorily than at present. The pitch in the back of the 20 fm. level, is set to four men, at 9s. in 1l., an increase of 3s. in 1l., compared with the last tribute. There is also a pitch set in the back of the 10 fm. level, over the shoot of ore in the 20, at 10s. in 1l. This shoot of ore appears to be continuous, and lengthening in depth, which will be proved, as fast as circumstances will admit of, immediately a short piece of ground in the back is stoped away, to allow the tributaries to throw their work through a place a little to the west of their workings, we shall be at liberty to sink under the level, whereby we may form a more correct opinion as regards the value of the lode, and the best method to be adopted to extract the ore with as limited expense as possible. There will be a good parcel of copper ore ready to sample in about three weeks; and, from present appearances, more to follow in succession.—March 25.—I have to inform you, that Saturday last being the monthly setting day, the bargains and pitches were set as follows:—The cross-cut in the 30 fm. level—price for driving, 6l. per fm. for 3 fms., to cut the lode. In the 20 fm. level west—price 5l. per fm.; although we have commenced cross-cutting through the lode to the north wall, as I hinted in my last report, to ascertain the nature and size of the lode, we have set two pitches—one in the back of the 10 fm. level, at 10s. in 1l.; the other in the back of the 20 fm. level, at 9s. in 1l.—the latter being 3s. in 1l. less than the former taking. We are getting on with the dressing up the ores, and, ere long, we shall have a parcel of ore ready for sampling.—March 29.

DEVON AND COURTENAY CONSOLS.—The lode in the 40 fm. level, driving east of cross-course, on the gossan lode, is 20 in. wide, producing good stones of ore, mixed with mudiic, spar, and peach—saving work; the end driving east, in the same level, on the south lode, is 6 in. wide, composed of mudiic, spar, and spots of ore; in driving west, in the 40 fm. level, on the south lode, we have intersected the cross-course seen in the level above, and driven north, to cut the gossan lode west of the cross-course, which, in the 30 fm. level, was heaved south about 4 fms. We have driven north about 6 ft., and, from the appearance of the ground, we are very near the lode; this will be proved in a day or two. The ground in the engine-shaft continues favourable for sinking.—March 28.

DRAKE WALLS.—At Brenton's engine-shaft, still hard ground, and rich for tin; stopes, east of Brenton's, below the 40—good branches; stopes, west of machine-shaft, below the 40—good tiny branches. Machine-shaft, below the 50—good branches; stopes, east of machine-shaft, below the 40—saving work; 33 end, east of machine-shaft—good branches, the ground improved for driving. East of footway-shaft—branches improving. New engine-shaft—improving for tin; going down the end on north lode; going west from the Tamar, the lode is large, producing a great quantity of mudiic.—March 25.

EAST CROWDALE.—The summen have been engaged cutting plat in the 58 fm. level, which will be completed by the end of next week. The 47 fm. level, driven on the course of the north lode, is still poor; the lode is about 1 ft. wide, composed of spar, kilaas, mudiic, and spots of ore. The rise and stopes, in the back of the 47 fm. level west, are still improving; the lode is, on an average, 2 ft. wide, composed of spar, capel, peach, and copper ore, of a good quality—we have risen about 5 tons of ore from this place during the past week; our engine and pit-work all in good order.—March 27.

GREAT MICHELL CONSOLS.—The lode in the sump winze is from 7 to 8 ft. wide; 2 ft. on the north part continues to produce some good saving work, and is, in its general character throughout, exceedingly promising; we have sunk in the last 8 ft., and broken about 18 tons of ore, worth, on an average, about 5l. per ton. The 35 fm. level, west of the sump winze, the part of the lode being carried 4 ft., contains mudiic, capel, spar, and ore, intermixed throughout. We have at surface, including tributaries, ore, about 25 tons.

HEIGNSTON DOWN CONSOLS.—The water is in fork, and we have resumed sinking Barley's engine-shaft, in which the lode is 4 ft. wide, producing good stones of tin ore. The ground in Buddle's adit is favourable for driving.

LANHEROEE WHEAL MARIA.—Last week I put two men to open on the K lode 18 fms. from surface, where we first cut it in the shaft, and find the lode improving every foot we open on its course, and will write you more fully the latter part of this week; by that time the lode will be more settled. You will get my report on Thursday—meanwhile, I shall open two or three at the 18; it is looking promising for something of great value.—March 25.—We

have commenced driving upon the K lode in the 18 fm. level, and find it improves eastward. We have this day drawn some of the stuff to surface; it is fair work for stamps. In the 30 we are driving east and west upon the same lode; but, being so near the little cross-course, it is in a disordered state, and I do not expect any change until we get a little further off—it is not, however, without ore.—March 29.

LOSTWITHIEL CONSOLS.—The engine-shaft is now laid down to the 30 fm. level, by which we propose to cross-cut to the Melham lode (No. 4), and three lodes within 20 fms. of the Melham lode, one of them being the counter; we hope to set the driving of the cross-cut on next pay-day, 25th inst. We have a floor of intensely hard spar now in the bottom of the shaft; but, as it dips N. & S. & W. we shall escape it in the cross-cut, which is to go south. We hope to see the Melham lode in little more than two months. All other matters at the mine are as usual. The engine works well; the water is not great in quantity, nor do we think that it will be so. The operations are proceeding as rapidly and economically as possible.—March 18.

KIRKCUDBRIGHTSHIRE.—The lode in the 50' end west is 6 ft. wide with spots of lead—set to-day to six men at 3l. 10s. per fm. The lode in the 40 end west is 3 ft. wide, producing one-third of a ton per fm.—not set; the lode in the end, on the counter east, in this level, produces about half a ton of lead per fm.—set to two men at 3l. per fm. The lode in Keith's shaft is 4 ft. wide, producing stones of lead, and ground much the same as for some time past—refused at 5l. 15s. per fm. The lode in the 30 end east is still in confused ground—set to-day to two men at 2l. 15s. per fm.; the lode in the 30 end, west of Keith's shaft, is about 3½ to 4 ft. wide, producing about three-quarters of a ton of lead per fathom—set to six men at 4l. 4s. per fm. From the setting list, you will further observe, that six pitches are set to 16 men at tribute, varying from 2l. 5s. to 4l. per ton. We have, this day, shipped 42 tons of lead for the market, per the vessel, *Caledonia*; and have 13 tons left ready dressed towards another shipment.—March 25.

MENDIP HILLS.—The ground in the 38 fm. level, south of the shaft, is now become a little more favourable for driving than it has been of late; and the appearance of the lode continues much the same as usual, composed of spar, flonk, iron, and limestone, producing at times small sprigs of lead near the footwall side. In the slag department, we are still making and fixing the necessary machines, &c., for returning a greater quantity of slag for the furnaces, which is being done with all possible dispatch; the masons are now engaged in fixing the small iron furnace for resmelting the lead into pigs, which will, I hope, be completed about Wednesday next. In the slag ground, the beds of slag through which we are now extending the open cutting, continues to look tolerably well, being about 11 ft. thick.—March 27.

PENNANT.—The ground in Oliver's shaft looks exceedingly well; all of it is intermixed with fine spar and barytes, making in droppers into No. 17 lode. I think we had better sink another 4 ft., or a fathom, so as to have enough room, or fork, for the water, before we cut a cross-course into No. 17 lode; then I think that I can keep the water down, and raise the rubbish with our horse-power, which will save us 7l. 16s. per month.

POLSAITH CONSOLS.—We have cut the lode at Tinner's Hill—on cutting which, the water came on so fast, as to prevent continuing to work; the lode, when cut, had a most promising appearance, consisting of gossan, copper, and lead; although we do not expect any profit from the copper, it has been found in that neighbourhood, when it has been met with in the lode, to be the harbinger of a good course of lead. I am writing out notices to receive tenders for the erection of the engine-house, which I hope to have up in six weeks from this date. I am myself, as well as every experienced miner who has viewed the mine, exceedingly sanguine as to its proving a first-rate mine, and that, too, at no great distance of time, or at a great cost. I should have been exceedingly glad, if we could have continued working on the lode without intermission, as we were daily expecting to have a quantity of lead in the ends—the Trebetherick side—the north end showing a good branch, when we were driven by the water; but, finding the draining of water by horses would be very expensive, I have directed the discontinuance of it, and their attention to the most expeditious mode of getting the engine to work, which will lessen the cost of drawing the water nearly one-half, and enable us to work constantly.—March 22.

SOUTH DOLCOATH.—At your request, we have been underground in South Dolcoath and Wheal Providence Mines. In the former mine (South Dolcoath) the engine-shaft has been sunk nearly all the way from surface, on a lode varying from 2 to 5 ft. wide, underlying about 2 ft. in a fm.; the shaft is now 7 fms. under the 40 fm. level; the lode in the shaft is now 5 ft. wide, and has altered its direction, being much more downright; as there is some alteration in the lode, we would recommend the sinking this lift to the 50 fm. level. The 40 fm. level is driven east of engine-shaft 5 fms.; in this end there is a large kindly lode, 3 ft. wide, composed of gossan and soft spar; this we would recommend driving, as there is a cross-course 50 or 60 fms. east—the ground is favourable for driving. The 40 fm. level is extended about 12 fms. west of engine-shaft; in this end the lode is small, and the ground hard and unproductive. The 20 fm. level is driven east of engine-shaft 25 fms. on a large kindly lode, with the exception of the last 2 fms., where the lode is small, and split into two branches. The 20 fm. level is extended west of engine-shaft 30 fms.; in this end the lode is 2 ft. wide—ground hard behind the present end, say 8 to 10 fms.; there is much water coming from the back, and at this point there is a large kindly lode, and the 12 fm. level being only driven 8 fms. west of engine-shaft, in which there is strong indications of copper, we would recommend the driving of this (the 12 fm. level) end, and rising at the given point in the 20 fathom level, west of engine-shaft.—**WHEAL PROVIDENCE.**—In this mine we could see none of the ends, the bottom levels not being cleared from the old workings. In the 12 fm. level, east of engine-shaft, the tributaries have discovered a deposit of rich grey ores, and choked the level; this lode being supposed to be a continuation of the Druid lode in the Carn Brea Mine, should recommend the laying open ground on it as fast as possible; also to cross-cut that piece of ground standing between this lode and Tincroft Mine, leaving several very productive lodes in the Carn Brea Mines, in the same run of ground.—March 20.

SOUTH WHEAL TRELAWNY.—We are getting on with sinking the engine-shaft in a very satisfactory manner, although the ground is somewhat harder; it is now 28 fms. below the adit level; the quantity of water is just as usual—we cannot speak of any increase.—March 25.

TAMAR SILVER LEAD.—In the 175 end, there has been no lode taken down since last report; but the discovered wall is presenting a favourable appearance. In the 160 end, the lode is 1 ft. wide, good stamp work. In the 145 end the lode is 2 ft. wide, 4 ft. of which is work of good quality. In the 135 end the lode is 3½ ft. wide, composed of cap, and ore, 2 ft. of which is saving work. At the north mine, in the 70 end, the lode is 3 ft. wide, yielding work of a promising appearance, and rich in quality. In the 50 fm. level the lode is 2 ft. wide, composed of cap and ore, with good stones of ore. In the tribute department, our prospects are just the same as for some time past. We hope to sample, on Saturday, the 1st April, 85 tons of rich silver-lead ores.—March 27.

TIN VALE.—I have to inform you, that we have waited for Capt. Nance, but he has not come. I have inquired of the men, if they delivered their message on Saturday. They told me they saw him, but he did not give a decisive answer. Probably he may be here to-morrow. I am happy to inform you, the work is going on well. John Hodge has commenced washing Birvins's work, and it is equal, and, I think, superior, to the other. William Northey has cut the lode in his pitch, and has fixed the tackle and commenced sinking. I saw some tin there to-day. The tin-dresser is preparing the first batch of tin, and the stamps will be kept at it smart, night and day, which will soon enable us to bring to market. The tribute pitches are just the same as when you left. The materials you wrote the order for are brought home and secured. I have nothing more to say. If Captain Nance comes to-morrow we will forward his report the first opportunity.—March 27. In consequence of your having this letter from Mr. Mansell when you left, your son did not go to post on Sunday, and, thinking to have Capt. Nance's report to carry early on Tuesday morning, did not receive the letters with the cash until yesterday. However, it is all right. John went to bank and received the cash. I have to say, that Capt. Nance has not been here; consequently, I cannot send his report. However, our worthy proprietors will only have to wait a short time and Tin Vale will report for herself. I intimated to you in my last of Northey and partner's pitch. I beg to say, they raised some fine specimens of tin from their lode, or branch, yesterday, only 9 ft. from the surface. We are getting on with the floor-work with all possible speed in your absence. I hope to use all diligence to get tin for the market.—March 28.

TRELEIGH CONSOLS.—The 120 cross-cut, north of Christoe's, is to cut the lode west of the slide. In the 110, east of ditto, the lode is about 2 ft. wide, with stones of ore only. The 100 south, east of ditto, is driving on the slide, intended to cut the lode we have in the 110 fm. level. Garden's shaft, below the 100, is sinking in the country—the lode is 2½ ft. north of the perpendicular; in the 100, east of ditto, the lode is 2½ ft. wide, but little ore, rather more kindly; in the 100, west of ditto, the lode is 2½ ft. wide, more promising, and producing good stones of ore. In the 90, west of ditto, the lode is 2 ft. wide, worth 6l. per fm. In the 80, west of ditto, the lode is 20 in. wide, with good stones of ore, not to value. In the 70, west of ditto, the lode is 20 in. wide, more promising, with stones of ore. In the 60, west of ditto, the lode is 2½ ft. wide, worth 20l. per fm.; in the rise, above the 60, the lode is 2½ ft. wide, rather disordered by a slide at present, with stones of ore; in the adit east, on Wheal Parent lode, the lode is 5 ft. wide, worth 3l. per fm.—this is split into two parts, with kilaes between; the adit, north of engine-shaft, is to cut Wheal Orphan lode. The low tribute pitches are much as usual. Time will not permit me to send you the distances of the various levels to-day, but will send them on Monday.—March 25.

WEST WHEAL JEWEL.—In the 57 fm. level, west of Williams's cross-course, on Wheal Jewel lode, the lode is 2 ft. wide, worth 13l. per fm. In the

rise, in the back of the 70 fm. level, west of Williams's cross-course, on the same lode, the lode is worth 4l. per fm. In the deep adit, west of Hodges's cross-course, on the same lode, the lode not taken down in the past week. In the 30 cross-cut, south from Tolcarne tin lode, the ground is a little more favourable for driving; in the deep adit, west of Quarry shaft, on Tolcarne tin lode, the lode not taken down in the past week. In the stopes, in the back of the 12 fm. level, west of Quarry shaft, on the same lode, the lode is 4 ft. wide, worth 50l. per fm. In the shallow adit, west of Quarry shaft, on the same lode, the lode is 2 ft. wide, unproductive.—March 27.

WHEAL TRELAWNY.—We are now cutting into the capels of the lode in the 62 fm. level, at Phillips's shaft, where there is quantity of water issuing out of capel, which makes it very troublesome to cut through; I hope to see the lode in two or three days. The lode in the 52 fm. level north is composed of can, muddle, and lead, worth 8l. per fm.; the south end, in this level, is at present worth 7l. per fm.; the stopes, in the back of this level, are producing a fair quantity of ore, but are rather hard. The lode in the 42 fm. level north is 2 ft. wide, composed of spar, can, and lead, worth 8l. per fm.; the stopes, in the back of this level, are very similar to my last report. The lode in the 32 fm. level north is without any material alteration; the ground is still good for driving. Trelawny's engine-shaft is progressing satisfactorily. The 22 cross-cut east is much as last reported. At Vivian's shaft, the 30 fm. level is still good for driving, and opening ground that will pay well for stopping.

FOREIGN MINES.

ANGLO-MEXICAN MINES.—March 27.—Owing to a pressure of business, and other circumstances, Mr. Brough had not been able to get ready the usual documents to send by this month's mail, but they will come forward by the March packet. The following is the statement of the Ascension Mine, for the five weeks, ending Jan. 29.

	Memoria.	Sale.	Profit.	Loss.
Dec. 31	\$ 658 6 1	\$ 878 3 0	\$ 219 4 7
Jan. 8	800 0 0	736 0 0	131 5 6
18	484 0 0	749 0 0	59 1 0
22	357 4 2	765 5 0	25 2 4
29	720 2 6	698 5 0	371 0 0
Profit			\$ 781 3 1	25 2 4

Total loss on the 5 weeks

Mr. Parkman has not yet returned; therefore I shall defer giving an account of the

carga until I get a proper report. During his absence I will visit the mine as much as I

can, and minutely inspect the underground operations; the above loss does not distress

me, as it results from the works I have ordered to be carried into effect; and I think that

the next packet will enable me to communicate better tidings.

BOLANOS MINES.—Received 27th March, per *Des*, dated February 3:—

El Bora.—Since my last communication to you, dated the 6th ult., I have the honour

to inform you, that the sink in San Genaro shaft has gone on exceedingly well, having

sunk 1½ varas during the month, but the walls are not sufficiently strong to stand with-

out timbering; therefore, we are now engaged in cutting bearer holes at the bottom of

the shaft, and making preparations to timber up the broken or loose ground. In the Victoria

cross-cut we are progressing as fast as the nature of the ground will allow us; and, on

the 29th ult., we cut considerably more water, but nothing more than the two malacates

can keep under—nor do I think it will impede the sinking in the shaft. In the cross-

cut of San Jose, the four malacates, to place the cross-cut, which we succeeded in

doing on the 1st inst., and has since been regularly at work in it. In consequence of

being compelled to stop the planes for a short time, on account of the water, it will, ne-

cessarily, make the extraction of carga small; and to make our expenses at the mine as

light as possible, it has been deemed advisable to discontinue some of the less important

workings; consequently, the adit of Valencia, the cross-cut of San Jose, and the cross-

cut of Esperanza, have been stopped. In Guadalupe the vein gradually increases in

width as we proceed, being at present full 4½ varas wide; but, with the exception of from

2 to 4 varas of quartz, with some pinta, the remaining part of the vein is disordered and

poor. The whole appearance of the vein is much more promising than when I last ad-

ressed you. The vein in the workings, at the bottom of this level, is tolerably good, and

the workings are still dry. In the level east, from Poso de Guila, the vein is about 4 varas

wide, and in good ore. The stopes also, below this level, and in Poso de Guila, the vein

continues good. The vein in plane No. 1 has again improved, and we have a very good

bunch of ore going down in these bottoms. The rise in the back of San Antonio con-

tinues much the same as when last reported. In the cross-cut of Esperanza we are still

driving through the vein, but without fruit. The rise in the adit of Valencia has been

communicated with the old Cata, and the adit again recommenced driving.

Extract of a Letter, dated 4th February.

The packet that left England on the 1st of December has not yet made its appearance

consequently, I am deprived of your letters. On the 11th ult., in the Companio cross-

cut, we came across a "rele," from which such a body of water issued, that, on the fol-

lowing day, we were driven completely from the cross-cut. It was immediately seen that

the water lessened in the planes, and, for a short time, we were in hopes that it would

drain them completely—but we soon saw that this was not the case. On the 1st inst. the

water was low enough to allow the workmen to go down and continue driving. There is

no doubt that this great outburst of water will enable us to extract a large quantity of

few ores, so as to keep the hacienda at work. I consider the "rele" to be the same that

was cut in the Constancia level, just before coming on the Providencia—viz.: 4 varas be-

hind the large vein. I have no doubt, but that, in two or three weeks, we shall come

across the vein, and the water come away entirely from the planes; but the question is,

if, with our present whim-pow, we can keep the water down, and be able to extract

cargas. Should I succeed in keeping the water down, and be able to continue extracting

ores from the planes, I am convinced that an extraction of 1500 cargas will be more

than sufficient to enable us to keep the mine at work, and to enable us to extract a

profit. Every point in the planes is looking well; and if no change takes place,

an extraction of 1500 cargas weekly could be made with ease, if half a whim can be taken

away from the drainage. In the east end of Guadalupe the pinta of verdolite continues,

and lately those of quartz are to be seen, but very few assays came up as high as 3 marcs

per monton. The vein, however, is getting wider, and should it get into ores, will, no

doubt, yield abundance of them—it being more than 4 varas wide.

Feb. 3.—The non-arrival of the expected packet has deprived me of your favour of Dec.

CELESTINA MINE.—Taking into consideration our very unfavourable prospects in this

mine, I thought that it might be advisable, in case the little ore we have in sight should

fail to return, that, as to its owners, and without consulting you on the subject, as, by this means, I should avoid considerable expense, while waiting your an-

swer. With this view, and so as not to depend altogether on my own unassisted judg-

ment, I requested Messrs. Placel and Manuel to visit the mine, and give me their opin-

ion, if it would be expedient to deliver the mine to the owners, as soon as the fruits we

are extracting should cease to cover the expense. These gentlemen, after a careful in-

spection, have reported to me that they consider that (notwithstanding the very un-

favourable appearance of the actual workings) it would be judicious to abandon the mine

driving through the vein, but without fruit. The rise in the adit of Valencia has been

communicated with the old Cata, and the adit again recommenced driving.

SAN FRANCISCO DE PAULA MINE.—This is a more expensive mine, on account of the

hardness of the ground, its greater depth, and the drainage; but the cost has been re-

duced as far as possible. We have now one bargain, and are endeavouring to break

the ore and open up the workings to the fifth cross-cut by means of buscones; and if there

be no falling off in the extraction, I trust the ore will nearly cover the costs.

LORETO MINE.—San Ignacio is looking rather promising; the ores are narrow, but

very rich, and eight or ten paradars have been working there lately. The driving west

continues—ore of the same quality and width; and our experience of the same vein, in

San Nicolas and San Clemente, would encourage the hope, that it may lead us to a bunch

of ore, similar to those which yielded so abundantly in those mines. This mine must be

nearly paying its cost.

IMPERIAL BRAZILIAN MINES.—Gold workings, at Gongo Soco, from the 1st to

the 30th January, 1848

[Letters coming by another conveyance.]

NATIONAL BRAZILIAN MINES.—Cocac, Jan. 3.—We have much satisfaction

in informing you, that a decided improvement has taken place in the appearance of the

ground in the eastern part of our workings: one sample from the vein, bruised down,

produced 5 oits. of gold. In fact, we can almost promise, that the returns will shortly

present a more cheering quotation.

Produce from Cocac

Ditto from Cuaba

Total

PACHUCA MINES.—Feb. 12.—The 51 vara cross-cut, south of San Guillermo shaft,

has been driven 64 varas, without having met the south wall of the lode. Throughout

this distance, we have found stones of azogue ore, but not in sufficient quantity to pay

for working. If, on reaching the south wall, no ore are discovered that will pay for work-

ing, I propose to suspend operations, until I receive further instructions. During the

past month, 480 quintals of ore were reduced, which produced 190 marcs of silver.

REAL DEL MONTE MINES.—[By this packet the directors are informed of the re-

ceipts of their despatches of the 24th of Nov. last, in which they notify their acceptance of

the resignation of their commissioner, Mr. W. Rule, and the appointment, provisionally,

of Messrs. Brencley and Woodfield, from the former of whom the present despatches

have been received.]

Mineral del Monte, Feb. 12.—In reply to the letter, dated 24th Nov., I would beg to

say, that I will take all possible care that the company's interests do not suffer, while,

with Mr. Woodfield, I remain in exercise of the temporary powers to be delegated to us

by Mr. Rule. By the account for Dec., it will be seen that the expenditure is stated at

\$60,205 34, and the returns at \$56,463 4 8—leaving a loss of \$3,741 9. The result of

December working is a sad illustration of the uncertainty of our estimates. The excess

arose from a charge of \$7000 to San Antonio Faena, for machinery from England; and

the amount of stores was increased by nearly \$8000, for sundry goods by the same vessel.

There has been a great difficulty, within the last three or four months, in obtaining a

supply of fuel for the engines and hacienda—so that it was found necessary to employ the

ore wagons in this service, during parts of the months of December and January (while

the transport wagons were on the road to and from Vera Cruz), in order to prevent the

stoppage of the drainage. This will have a serious effect on the current month's produce

—the grinding at Regla having been suspended during some weeks, for want of ore. We

are placed here in a very disagreeable position, by the continuance of the war. Every

possible step has, however, been taken for the protection of the company's property, by

communicating with the authorities, and with the Mexican and American authorities. The

effect of the war is also much felt in freights—that of the quicksilver now on the

road is 850 per carga.

Mines Report.—The driving of the cross-cut south, 11 varas east of San Pablo mine, at

the Santa Teresa level, was suspended on the 15th of last month, in order to drive on

on the Biscaina; under the slide, the vein is two varas wide, with bunches of azogue and

smelting ore. The above-mentioned workings, and the stopes west from San Pablo mine,

below the Solaga, or 191 vara level, have been hindered since the 16th of last month,

in consequence of breaking the piston-rod of Dolores engine, which was idle 68 hours,

while the repairs were in hand; we expect, however, to resume the workings at San

Pablo in the course of a day or two. In Santa Ynes there are seven planes working over

the adit level north and south from rise, 142 varas north of San Vicente shaft; the vein is

from 4 to 5 varas wide; the above-mentioned laborers are producing 320 cargas (1 azogue

ore per week, assaying 12½ mcs. per monton.

Rosario.—On the 5th inst. we commenced sinking the San Enrique winze, below the

San Enrique level, on the south part; 73 varas east from the shaft, the vein is 1½ vara

wide, with bunches of azogue ore, and has a promising appearance. There has been no

ANTIMONY AND SILVER-LEAD MINES OF ST. KEW.

SIR.—I lately observed in your valuable Journal, the report of the lectures on minerals, delivered by Mr. Hunt, at the London Institution; and in which he speaks of antimony ore being found in the neighbourhood of Liskeard. This article is found in great abundance in the island of Borneo, and from thence taken to Singapore, and shipped for England, at an expense of about 4*l.* to 4*l.* 10*s.* freight per ton. It is astonishing, the industry and research of Englishmen should drive them to foreign shores, for the purpose of obtaining an article which can be found in great abundance, and at much less cost, in this country. A short time since, I observed a prospectus of an intended company, who were to work the antimony and silver-lead mines at St. Kew. It is well known, that this part of the county is celebrated for producing antimony ore, equal, in every respect, to the antimony ores found abroad; and yet, up to the present time, this branch of our minerals seems to be totally neglected. The whole district consists chiefly of antimony and silver-lead ores. Some years since, the Treburget Mine, in the adjoining parish to St. Kew, was worked for silver-lead to a considerable extent; and a mineral, which at that time was supposed to be white mudic, was thrown amongst the attle and rubbish, as useless. By mere chance, this was assayed, and found to contain a large quantity of silver, and from which, eventually, profits to the amount of upwards of 30,000*l.* were returned. There are several young mines in the same neighbourhood now at work. In the parish of St. Kew, and adjoining the Antimony and Silver-Lead Mines, is Wheel Sarah Mine, lately taken up by a party who are about to erect an engine. From the present appearances on the surface, and the indications at a greater depth, there is no question of large returns of ore being procured; and the like results may be expected, on the lode being worked, in the Antimony and Silver-Lead Setts adjoining. A little further, is Pengenna Mine, worked by Messrs. Gill and Rundle, of Tavistock; this mine has returned a large quantity of silver of a very superior quality, although it has not been worked with spirit. The lode of this mine, I am informed by the captain—and, from the appearances, I believe to be correct—also goes through the Antimony and Silver-Lead Sett. It only requires capital, economy, and patience; and there is no question of this being one of the richest mineral districts in the county. I trust the day is not far distant when antimony ore may be found in sufficient abundance in Cornwall to supply the home market.

BWLCH CONSOLIDATED MINES.

SIR.—We observe a paragraph in your Journal of this date, which we beg to inform you, if it refers to the Bwlch Consolidated Mines, that the whole statement is incorrect. Should we be right in our conjectures, please to give this equal publicity in the Journal.

Three Kings' Court, Lombard-street, March 25.

[We certainly understood from parties connected with the Bwlch Consolidated Mines (which were the mines referred to), that a meeting had taken place on the day named, and that a call of 50*s.* per share was made; but on our making the inquiry since of Mr. Treddinick, we have been assured by that gentleman that no such call was made; yet he admits that a meeting was held, and in making up the debtor and creditor account of the mines, that shareholders have been debited with the amount named—therefore, upon his assurance, we will call it a debt of 50*s.* per share, and not a call; still we have not seen the resolution or minutes of the meeting.]

DEVON GREAT CONSOLS MINE.

SIR.—According to promise, Messrs. Rule and Opie, together with myself, have carefully examined and inspected the Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria Mines, and beg to furnish you with the following report thereon. The situation of these mines being so well known, we abstain from any remarks on that head, and proceed at once in the order in which the inspection was made.

WHEAL MARIA.—The engine-shaft is sunk 9 fms. below the 60 fm. level, perpendicular; at present on a cross-course, with the ground favourable, and it is intended to sink the shaft to the 80 fm. level, previous to a cross-cut being driven to the lode; should it prove productive in this level, another cross-cut will then, of course, be driven in the 70 fm. level. In the 60 fm. level, driving west from Morris's shaft, the lode is 6 ft. wide, with good stones of ore, but not rich; this level has reached the first main cross-course, but the lode has not been opened on to the west of it. The 50 fm. level is communicated from Guard's shaft to Morris's. In the 28 fm. level, where the lode is 28 ft. wide, a cross-cut has been driven south about 3 fms., in which three branches have been discovered—the first is 6 in. wide, good work; the second 8 in. wide, ditto; the third is 1 ft. wide, and will produce 24 tons per fm., worth 7*l.* per ton. In our opinion, the adventurers would be well remunerated by continuing that cross-cut south to a considerable extent, and also another north, the lode being of such an immense size at certain parts, and we doubt not but there are several parallel lodes to be intersected. We consider that six men should be driving west on the south part of this lode, where it is split into branches, as there cannot be a doubt but that these branches will form a junction in going west, in which case it may be naturally expected that such large deposits may be met with as will equal anything hitherto seen in this mine, there being a great distance of unwrought west from this point.

WHEAL FANNY.—Here, to our great surprise, we found tributaries working within a very few fathoms of the surface, on a splendid course of ore. In the 25 fm. level, driving west, there is a course of ore in the end, 15 feet wide, producing about 28 tons per fm., worth 6*l.* per ton, giving nearly 170*l.* per fm., and we consider this calculation sufficiently low. In the 35 fm. level west, the end is worth 25*l.* per fathom, and the back is set on tribute at 2*s.* in 1*l.* There are about 40 fms. to be driven west to get under the great course of ore in the level above; and, from the indications, we think there is little reason to fear but that this level will be equally as productive. The lode in the bottom of the shaft, in this part of the mine, is 5 ft. wide, worth about 12*l.* per fm., and very kindly. At the eastern shaft here, the lode is 8 ft. wide, worth about 13*l.* per fm. In the 45 fm. level east the lode is 5 ft. wide, worth 10*l.* per fm. In the 35 fm. level east the lode is 6 ft. wide, worth 10*l.* per fm.; west at ditto it is 4 ft. wide, worth 9*l.* per fm.

WHEAL ANNA MARIA.—In the 30 fm. level here the lode is split, altogether it is about 4 ft. wide, but not rich. In the 40 fm. level west the lode is again split similar to that noticed in the level above, and about the same size, unproductive at present; in this level a fine course of ore has been driven through for 40 fms. in length; in this level east the lode is 8 ft. wide, but not rich. In the bottom of the engine-shaft the lode is 8 ft. wide, and worth about 27*l.* per fm.

WHEAL JOSIAH.—In the 60 fm. level, east of Hitchens' shaft, the lode in the end is 4 ft. wide, worth 32*l.* per fm.; in this level a course of ore has been driven through for 60 fms. in length, it is 9 ft. wide, and very rich. From this source ore is available whenever the samplings may require it, and, as must be obvious, will yield an abundant supply. The lode in the bottom of the engine-shaft, and under the above level, is now 8 ft. wide, and the north wall not yet reached; this shaft is sunk 12 ft. long, and from the nearest calculation, we should say it was worth 250*l.* per fm. Richards's shaft, now being sunk below the 70 fm. level, the lode is 5 ft. wide, and worth 25*l.* per fathom, indicative of speedy improvement. Truly it may be said that this is a great and good mine.

It has been asserted that these mines have been unfairly worked underground; whatever may have been the case heretofore we know not, but we confidently assert that such is not the case at present, the tributaries being kept at a most legitimate distance behind the ends. It has been further stated, that the pit-work, &c., is generally very defective; but from a minute examination we can only come to the conclusion, that such statements are utterly groundless—and we are perfectly satisfied that no unprejudiced person would think otherwise.

Capt. Richards informed us, that it was intended to drive a cross-cut south on a cross-course in the 60 fm. level, to intersect a south lode at Wheal Josiah; this we strongly recommend to be done with all speed, and also another cross-cut north, as we have strong reason to believe there are more lodes to cut that may probably prove equally as productive as the main lode.

On taking a glance over this extensive mining property, we are of opinion that the number of underground agents is very insufficient for the work that must necessarily be performed. We would beg to suggest that two additional underground agents should be appointed, and we feel assured that this arrangement is necessary to carry on the operations effectively, and would, no doubt, prove very beneficial to the interests of the adventurers; whilst we cannot withhold our approval of the admirable arrangements at the surface, we still consider that no expense has been spared.—Might not a surface agent be made available for our suggestion for an additional underground agent?

Rumour has said that this mine has seen the best of her days, but we unhesitatingly declare that there are thousands of tons of ore discovered at this time, and we have no doubt of its making a lasting and profitable concern.

In conclusion, we would briefly remark that we can see no obstacle to the returns being fully 1200 tons per month, and that for some considerable time to come.—J. CLYMO; B. ORIE; W. RULE: South Caradon Mine, March 24.

DEVON GREAT CONSOLS—RAILWAY.

SIR.—A few days since, business having called me into the Devon Great Consols district, my attention was occupied by the subject of mines, and matters connected therewith. When conversing with a friend on the subject of the carriage of materials and produce to and from these mines, and finding that the expense of the conveyance is, with the present roads, necessarily heavy, it occurred to me, that a railway from Morwellham, by the side of the Tamar, to the mines, would be an important acquisition to the company, because it would effect a considerable saving in this item of expenditure. The construction of a railway between those points would, in my opinion, be a good speculation for any company; so that, if the adventurers were to construct it, they would derive a double benefit—viz.: the saving in their transit cost, and the profits on the railway.

It might be objected by some, that the traffic is not sufficient to pay a pro-

per per centage on the outlay; to which I would reply, that if the costs were equal to that per mile on some of the most expensive lines, the objection would hold good; but as the cost would be trifling beyond the mere materials (for I presume that the noble proprietor would give the land), the outlay would be so limited as to be no subject of objection. I have no doubt that the line, if used exclusively for these mines, would pay for the outlay; but this would not be the case, as several other mines of rising importance are at work in the vicinity. These are Badford United, Huel Williams, Lamerhoo, South Maria, and others. Besides these mines, there are traffic wants of the neighbourhood to be supplied, for which purpose, and for the use of the Callington and Holm-bush Mines, the railway might, after awhile, be extended three miles up the valley. If any timid person should object, secondly, that the Devon Great Consols are not likely to last long enough to remunerate the adventurers in the railway, I answer, that there is no mine in the neighbourhood, from what I can learn, more likely to last than these mines. The sett is very extensive, the lodes large and good, and several mines are at work in the sett, of a very promising character. On all these circumstances, I congratulate Mr. Hitchens, and the other fortunate adventurers. I remember, that about 24 years ago, the Huel Vor Consols adventurers, taking into consideration the great expense of carriage of coals, &c., contemplated the laying a railroad from those mines to Hayle; a surveyor was employed to try the levels, and report on the line. This was done, and the project abandoned, from a fear that the mine would not work long enough! The mine only recently ceased to work, after working about 40 years, during which period the sum which the adventurers paid for the carriage of coals, &c., would have repaid for a railway, probably, four times. Now, although no man can speak assuredly as to the duration of a mine, I look forward to seeing Devon Great Consols rich in old age—i.e.: if I live to old age myself.

The line could be worked most inexpensively, because the carriages would run down by the gravitating force, and might be drawn up by water-power; so that, I apprehend, a more economical plan could not be conceived of working a line; nor do I see a more eligible site for a railway on a small scale.

Truro, March 23.

R. SYMONS.

SOUTHERN AND WESTERN MINING COMPANY OF IRELAND—GURTAVALLIG MINE.

SIR.—The first general meeting of shareholders was held in Cork, on the 6th inst.—not in Dublin, as appears to have been the case, by your Journal of the 18th inst. In answer to several questions, I stated in reply, that, considering the nature and extent of our operations—the concern being completely in its infancy—I had never seen a mine opened with better prospects of ultimate success; and that, if we obtained anything like a moderate price for the cargo of ore now ready for shipment, it would fetch 600*l.*

Coosheen Mine, County Cork, March 22.

W. THOMAS.

WHEAL TREVENNA.

SIR.—Our pitwork is fixed to the 30 fm. level, and we have driven west on the course of the lode in that level about 4 fathoms, and east about 2 fathoms. In the western end, the lode is from 2 to 3 feet wide, containing spots of copper, and a considerable quantity of mudic, together with spar, peach, and prair; the ground is very favourable, and may be driven for less than 2*l.* per fm. In the eastern end the lode is from 3 to 4 feet wide, very similar in appearance to that in the western end, and ground equally favourable—a circumstance which will enable us to make a fair trial of the lode in that level, in very little time.

From the fact of the lode containing such quantities of mudic in this level, more than had been seen any where above, and of its being very near an elvan course, my former opinions are the more strongly impressed, that we shall meet with an ample remuneration for our outlay, by a very moderate degree of perseverance.—SAMUEL BENNETTS: St. Neots, Cornwall, March 25.

ST. JOHN DEL REY MINING COMPANY.

SIR.—“A Proprietor” addressed a letter to you last week, respecting the treatment of the slaves belonging to the St. John del Rey Mining Company in the Brazil. I have no doubt that the directors wish to have their slaves well treated, but how is it that “A Proprietor” does not say, if it be true or not, that they have been severely punished with lashes? Will he justify the fact of the company holding slaves? Will he deny, that by hiring slaves annually, which is done to evade Lord Brougham's Act, which forbids their purchasing slaves, the company does not encourage slavery? In one part of “A Proprietor's” letter, he talks of the slaves being “creatures of the same Almighty Creator, and entitled to the utmost forbearance at our hands.” Does he maintain, that the company purchase slaves, and hire them, for the purpose of benefiting them (the slaves), or for the company to raise gold for their own profit? It appears to me, that it is profaning the name of the Almighty, to use it in such a cause. The affair will not end here. A petition will soon be sent to the hon. Members, to inquire into, and obtain from, the company a statement of how many slaves are held, how many purchased lately, or hired, and how they are punished, &c. With regard to the English employed here, I have nothing to say—that belongs to the shareholders; though I read in one of your Numbers, of men being fined for attending divine service; and there are four men asking for their discharge; and that the persons who officiated at divine service went immediately afterwards to play at billiards and dance; and that every man, when his time is up, will leave. This does not speak much for the good feeling there; and there are English miners in Cornwall returned, who will vouch for its truth.—A SUBSCRIBER: City, March 30.

SLAVERY IN FOREIGN MINES.

SIR.—The St. John del Rey shareholder, whose letter appeared in last week's Journal, should have made some further inquiries, respecting the slavery on the mines, while he was at the office. He states, that there are four or five who are provided with an extra suit of clothes annually for good conduct. Say, this is one slave out of a 100, and that one may be a favourite, on account of his cruelty to the 99. What I want to ask of the shareholder is, did he inquire how many had been flogged during the last year; and how many stripes each received at a time? What each offence consisted of? Who gave the order for the flogging in each case? and who was present at the time it took place? Surely, the directors can furnish these particulars—otherwise, they are not fit for the office they fill. I maintain, that slavery ought to be done away with; likewise, flogging in the army and navy; and I am happy to see the French, under the new order of things, have abolished slavery, and flogging in their army and navy. My opinion is, that no Englishman, or company, can hold or flog slaves in Brazil, Cuba, or any other place, under severe penalties; and each shareholder, as well as the directors, is liable to a penalty for each slave so held or employed: Is it not disgraceful that Englishmen should advance their money for such purposes? But it is believed the time is fast approaching, when such supporters of slavery and flogging will be held by all respectable persons with the contempt their conduct merits. AN ENEMY TO SLAVERY.

Cornhill, March 29.

TUTWORK AND TRIBUTE.

SIR.—The letter from “A Mine Agent,” which appeared in your last of this subject, not being in accordance with the views entertained by many of your readers, I am induced to request the favour of your inserting the following observations in reply.

Although “A Mine Agent” is of opinion that the present mode of setting bargains is not calculated to prove beneficial to the parties concerned, it does not appear to me that he has succeeded in proving the evil to be so great as he supposes. He states that, in his opinion, “a man attending a mine sett, should be on the same footing with those who attend a public auction—having the benefit of a fair competition for the work offered; but, under the present system, not one in fifty has anything like a fair chance for the work set at a mine survey.” I think, that on reconsidering the contents of the paragraph just quoted, “A Mine Agent” will, without much difficulty, perceive a great distinction between competition for labour and for goods sold at a public auction. If one man outbids another at an auction, he obtains the article at what he considers a reasonable price. This competitor is not injured by the purchase; not so, however, with regard to labour; as, if one man cut another at a mine survey, he takes the bargain at a very low price; and the consequence is, that he not only causes injury to others, but becomes a loser himself by his unwise conduct. Another objection to this unlimited competition is, that it is unfair for strangers to enter a survey, and, just for the sake of getting a place, to cut out others who have been previously engaged in the mine—unless the former taker refuse the captain's price; then, of course, the bargain is open to fair competition. And if a pair of men take a pitch, or bargain, and work the same to the satisfaction of the agents, they certainly should be entitled to the preference at the ensuing settling.

Our friend goes on to state—“The remedy I propose, is for the settler to offer at first only a certain portion of the price of each pitch or bargain, and advance, if necessary, to the agent's price.” The object of this proposal merely appears to be for the purpose of setting bargains at the lowest price—no matter whether the men can get a living or not. If a captain has fixed a fair price, why ask half that sum, when he knows it is not a just remuneration for the labour required to be performed?

As before observed, I do not consider that any valid reasons have been given for the discontinuance of the present system; and, in drawing his conclusions, it is tolerably clear, that “A Mine Agent,” in his anxiety to promulgate his economical principles, has overlooked the well-known axiom, that “every man is entitled to a fair day's wages for a fair day's work.”

Tavistock, March 28.

FAIR PLAY.

TUTWORK AND TRIBUTE.

SIR.—In perusing your valuable Journal this week, I observe there a letter, calling the attention of all the agents and shareholders in mines to a new mode of setting tutwork and tribute, by “A Mine Agent,” as he calls himself, who professes to have the interest of both the employer and the employed in view; but I query if he has either of them—I should rather think that he is one of

those inexperienced persons that have got into a situation as a mine agent, by the aid of some cousinship, and now is out of employ, who thinks, by his new plan, to obtain another; but if he had much experience in mining, he never would let himself down so low, as well as all other practical agents, as to make so ridiculous a statement as to say, that they are not judges of a fair price for a tutwork bargain or a tribute pitch. Should his plan be adopted, in the first place, we should have all our bargains and pitches taken by the good-for-nothings that are idling about from place to place, and will not half work when they have it; and instead of 8 fms. of ground per month driven or sunk, we should have about 1 fm., and the adventurers' property would be ruinously deteriorated. Agents would be but little obeyed, as the men would set but little value on their places, as they might fully expect to be out of employ the next month. Suppose, now, we were to adopt this plan, what are men of families to do, how are they to act, when out of employ?—I mean those who have left their homes, and have come some 50 or 60 miles, and are now settled in this county and elsewhere; we should fill the unions in a short time, and I have no doubt but that much blood would be shed after a while. Look at Fowey Consols, when the same plan was in operation, what was the consequence?—a strike with the miners, and nearly a rebellion; I believe many at that time would as soon have taken a sword in hand, or musket to shoulder, and fought for bread, as go home to their starving families. I know no better plan for mining operations to be carried on in a judicious and economical manner, than to give a price at sight, and a month's stint, as this will be the most profitable to both parties, and our mines would be worked with spirit. I hope that we shall not think of cutting miners' wages below what they are at present—for I assure you, that many of them are half starving at this moment; they are, it is well known, the most useful class of men under the sun, who are exposed to many dangers daily, and are but short-lived—many hundreds of them die before they are 40 years old, with consumption. What can all other classes of men or people do without the miner—they are as intelligent as any other labouring men in the world. I hope if “A Mine Agent” cannot find something better to bring before the public, that he never will come out in your Journal any more, for I think it of greater worth than to be filled up with such nonsensical stuff as his.—JOHN SEYMOUR: Caradon Wheal Hooper, March 28.

ANTIMONY AND SILVER-LEAD MINING AND SMELTING COMPANY.

A meeting of the gentlemen connected with this undertaking took place at the offices of the company, 58, Lombard-street, on the 29th of March last.

Capt. F. J. BELLEW, H.E.I.C.S., in the chair. The purser submitted the reports received from the different agents who had inspected the mine (which have already appeared in the *Mining Journal*), which were most satisfactorily received; after which the rules of the company, being conducted on the Cost-book System, were submitted; and it was unanimously agreed, that the same should be considered and adopted as the rules of this company, and that the necessary steps should be taken for the purpose of erecting a refining-house for the antimony ores. A letter was also laid before the committee from Professor D. T. Ansted, M.A., F.R.S., and Consulting Mining Engineer, who had left on purpose to examine into the antimony and silver-lead lodes in this mine, and report generally upon the features of the district. It is expected that his report will be laid before the committee and shareholders at the next meeting, to be held on Monday, the 10th of April next, at 2 o'clock, p.m. The specimens sent from the mine were duly examined, and a general observation, that finer specimens of antimony had never been seen in London—some of which were upwards of 70 to 100 lbs. each, perfectly solid.

Capt. J. FLOYD, of the Tin Vale Mine, being in town, and having inspected the lodes in the sett, entered into a lengthened detail of the facts connected with the mine, and stated, that there was no question of this making a first-rate adventure; and, during his whole experience in mining, which had been upwards of 40 years, he had never seen more promising lodes than those in this mine. He was aware that there was an opinion prevailing that antimony was only found in beds; but he had, in the numerous costeaning-pits which had been opened, examined and traced this lode for upwards of 100 fms., and found it to be a regular pipe of antimony, carrying on the backs as fine a gozzan as a lode could possibly carry; and, that no mistake should occur, the miners had sunk from the surface upwards of 5 fms. upon the lode, and raised a considerable quantity of antimony ore, which, at that depth, being in solid ground, was from 3 ft. to 4 ft. big, of solid antimony, similar to the samples laid before the gentlemen; and he would candidly express his opinion, that this was a lasting mine, and would pay ample dividends to the shareholders for any outlay they may think proper to make. On the lower part of the estate was Wheal Sarah, the lodes of which had been traced through this sett for nearly a mile; and, from the nature of the gozzan, and general appearance of the lodes, there was no doubt, in his mind, of there being abundance of silver-lead ore, and that in good quality, particularly as the antimony lodes crossed the silver-lead lodes; and there was no question of their making rich at the junction. He had also paid particular attention to the strata, being a beautiful felspar-schist, which was most congenial for antimony and silver-lead ores; and, although not much mining had been going on in this district for some years, yet, when the mines had been properly worked, the returns were ample; and, among the mines adjoining this, was the old Treburget Mine, which had returned upwards of 100,000*l.* clear profit in silver-lead; and then, again, there was the old Legossic Mine, which had also made large returns, and the Pengenna Mine, the lodes of which run through this sett—this latter was famous for the large quantities of silver it made in its lodes, some of which were almost solid silver, and, therefore, most valuable. He would not take up the attention of the meeting with any further remarks, but only state that the roads in the neighbourhood were good, and that the expense of carriage to the sea-port, which was distant not more than two miles, would be trifling.

The thanks of the meeting being given to the chairman, it was adjourned until the 10th inst., for the purpose of receiving the report of Prof. Ansted.

COIPIAPO MINING COMPANY.

The half-yearly meeting of proprietors was held at the offices, Austinfriars, on Thursday, the 30th of March.

CHARLES HEATON ELLIS, Esq., in the chair. The advertisement calling the meeting having been read, also the report of the last meeting, the CHAIRMAN then read the following report:—

REPORT. Since the meeting of the shareholders, in October last, the directors, after giving full consideration to the reports of their special commissioners, came to the resolution of combining in one person the office of head manager and chief mining captain at Copiapo; they, in consequence, informed Mr. Bingley, in Nov. last, of their determination that a new system of management and great economy for the future had become unavoidable. They subsequently, after much communication with their late chief mining captain, Mr. Sampson Waters, concluded an agreement with him, giving him full powers and instructions for winding up all accounts with Mr. Bingley; also, directions for the future management of the company's affairs at Copiapo. They feel much confidence in Captain Waters' zeal and ability. In Dec. last they informed Mr. Bingley of the step they had taken, and gave him notice, in due form, of the termination of his engagement with the company. Capt. Waters left England for his destination by the packet of the 17th Jan. last, and will, it is expected, reach Copiapo about the end of the present month.

At the last meeting the directors informed the shareholders, that, acting under the advice and recommendation of the special commissioners appointed to inspect their property, they had come to the resolution of giving up the workings of the silver mine of Pampa Larga, and had given notice to the manager to that effect, which notice he acknowledged to have received on the 29th December, and that it should have his immediate attention. The balance of expenditure on account of the company's third share in this mine, up to the present period, amounts to about 5500*l.*, against this is to be set off the value of about 70 tons of silver ore, raised at the mine for account of the company, besides the implements, and other materials, lying there. Since the last meeting, the *Zodere*, *Zhu* has arrived; she brought 480 tons of copper ore, which averaged 37*l.* per cent., and sold for 20*l.* 7*s.* 6*d.* per ton. During the past year, five vessels have arrived for the company, bringing, together, 2065 tons of copper ore, which averaged 26*l.* per cent. of copper, and sold for 20*l.* 10*s.* a ton, realising a profit of 3190*l.*—at the time, the duty paid thereon amounted to 3370*l.* The two vessels, mentioned in the report of July last, as having been chartered for the company, have been, unfortunately, lost on their outward voyage; some delay must necessarily occur before any cargo can reach England, unless the manager has been able to meet with a suitable vessel at Valparaiso. Two other vessels have since been engaged in England, which it is expected will load together about 1000 tons of copper ore; some time must, however, elapse before they reach Copiapo; but this delay will be, in some measure, compensated for by the prospect of a repeal of the duty on copper ore; and it is to be hoped that the standard for copper will improve before the next cargo arrives. At the date of the last advices (29th December), the manager had a stock of about 2475 tons of copper ore lying in the valley of Copiapo, besides about 340 tons of dressed ore at Malpaso—of the former, 700 tons were at the pier ready for shipment. Since the month of June last, when Capt. Waters left Chili, the average quantity of ore raised at the mines of Checo and San Pedro, has been 86 tons a month; and, according to the reports of the assistant mining captains left in charge of the mines, the prospects continued favourable; the ores are reported to be of a superior quality. There is little doubt that, when the English miners, hitherto employed at the silver mine, shall have been removed to the copper mines, the produce will be considerably increased. With reference to the relief to be afforded by Government, in respect of the duty imposed in 1842, on the importation of foreign copper ore, it may be interesting to the shareholders to know, that at the amount paid by the company, since that year, has amounted to no less than 11,540*l.*

It was resolved, that the report be received and adopted.—The thanks of the meeting were then voted to the directors for their attention to the interests of the shareholders, when the meeting separated.

WHEAL SPEARNE CONSOLS.—At a meeting of adventurers, held at Bales-widden, on Tuesday last, the purser (Richard Pearce, Esq.) produced the accounts for the past three months, showing an expenditure of 1045*l.* 4*s.* 11*d.*—leaving a balance in favour of the adventurers of 494*l.* 15*s.* 9*d.*—It was resolved, that the purser should make an immediate dividend of 2*l.* per 128th share, making 256*l.*—leaving a balance of 238*l.* 15*s.* 9*d.* to be carried to the next account in favour of the mine. We understand that the total amount of calls made on the adventurers in these mines has been only 102*l.* per 128th, or 1280*l.*—a sum far short of the value of the engines, and other materials, the property of the adventurers, who are now congratulated on having received 15*l.* 13*s.* per 128th, or 2016*l.* in dividends, with every prospect of a continuance. Much, however, must depend on the state of the tin trade, which has been sadly depressed in this county, with prices declining for 12 months past.

CALLINGTON MINES COMPANY.

The fifth annual meeting of adventurers in this company, was held at the offices, Finsbury-square, yesterday (Friday).

R. HODGSON, Esq., in the chair.

The circular letter convening the meeting, and the following report, were read:—

The progress which has been made in the several departments of this mine, during the past 12 months, has been carefully described and particularised by the quarterly reports and accounts, which have been submitted to you by the directors; and a retrospective view of the results, since the last annual meeting, will furnish convincing proof of the successful development of the lodes, which indicate, in further prosecution, good and lasting results. If, therefore, the state of this property, 12 months since, is contrasted with its present position, it will be proved, that, in all circumstances, the mines have progressed in prosperity. Explanatory details, with relation to the Kelly Bray lode, are furnished by the agent's report, from which it will be deduced, that, since the last annual meeting, the shaft has been sunk 35 fathoms upon the lode; levels have been extended at the respective depths of 20, 30, 40, 50, 60, 70, 80 fathoms. These levels are being carried forward with expedition and energy. The 70 fathom level has been driven 28 fathoms beyond the cross-course frequently mentioned, and, at this point, a regular course of copper ore has been explored, from which 70 tons have been broken during the present month, and the next sampling will exceed 100 tons. The agent also states, that 700 tons of ore could, with facility, be produced monthly, if the same quantity of ground was developed upon this lode as is laid open on the silver-lead lode. The composition of the copper lode is of a most congenial nature for large and rich deposits of copper ore—the lode being of a nature similar to that in which some of the most lasting and profitable mines have been realised. To extensively and effectually work these promising lodes, an engine has been purchased, paid for, and is now in course of erection. The necessary buildings and arrangements have been completed for it, and the approaching summer will afford ample opportunity of working the lodes with economy and success. The returns from the lead lodes continue undiminished in quantity, and the position of this part of the mine has in no respect deteriorated since the last annual meeting. Good, promising, and necessary work is being carried on, for the purpose of continuing the profits hitherto realised. The operations upon tutwot and tribute are sustained with regularity and precision, every means being adopted to maintain the present returns, and to ensure a prosperous future.

The directors deem it unnecessary to particularise the several departments of the mine, explanatory details being furnished by the agent's report, which will now be read, and by those submitted, at the present quarterly meetings. Your attention, however, is requested to the Kelly Bray part of the sett, where it will be seen that a new mine is in rapid course of exploration, the resources of which, to a considerable depth, will be quickly exhibited. The results hitherto obtained are of unqualified promise. The returns, during the short space of six months, may be estimated at 1300t, although great difficulties have attended the great and important work, which has been carried into effect, but which most satisfactorily and convincingly establish the benefits, which will duly result from the expenditure of time and capital which has been expended on the Kelly Bray lode. The low prices obtained for all mine produce, has seriously effected the company with respect to dividends; but those paid during the last year, with the statement of accounts now to be submitted, show that the mines are making good profits, although a very diminished price is obtained for their produce. The whole of the surface work and machinery is in efficient condition, the whole arrangements being of a nature at once complete, durable, and convenient.

The directors can now congratulate, with confidence, their fellow-shareholders upon the important changes and propitious improvements which have taken place in their property since the last annual meeting. The lead lodes throughout the sett maintain their productively rich character, and yield a fair profit; beyond this a large and rich mine is being developed at Kelly Bray, the prospects of which indicate large and lucrative returns. Thus, it will be seen, that the company is in possession of two excellent mines—one producing rich silver-lead ore, and the other copper of rich quality. In both mines a large force is employed on tutwot, from which great discoveries may be anticipated; for the more the ground is developed, the more certain is rendered the result of these mines becoming a lasting and profitable investment. To consummate this result, the directors are using the most active exertions in returning to the shareholders the resources of their property; and the successful results of the works hitherto adopted, not only bears a due proportion to the time and capital expended, but has exhibited a source from which will be derived an ample return for the capital invested.

Statement of Accounts for three Months, ending Dec. 1847.

EXPENDITURE.		
To amount of Oct. cost, including Kelly Bray	£1842 2 11	
By silver-lead ore—October returns	£1735 11 10	
By silver-lead ore—November ditto	1600 6 10	
By silver-lead ore—December ditto	1678 16 9	5094 19 8
Kelly Bray October cost	£322 2 10	
By silver-lead ore—November ditto	345 0 2	
By silver-lead ore—December ditto	535 11 4	
Less copper ore sold	£1900 14 4	
Add ditto ditto	556 3 4	644 11 0
Add tin ditto, 71 lbs. 10s. ditto old iron ditto, 10t.	17 18 0	
Balance from last account	298 17 6	
Total	£6612 9 3	

RECEIPTS.		
By silver-lead ore—October returns	£1735 11 10	
By silver-lead ore—November ditto	1600 6 10	
By silver-lead ore—December ditto	1678 16 9	5094 19 8
Kelly Bray October cost	£322 2 10	
By silver-lead ore—November ditto	345 0 2	
By silver-lead ore—December ditto	535 11 4	
Less copper ore sold	£1900 14 4	
Add ditto ditto	556 3 4	644 11 0
Add tin ditto, 71 lbs. 10s. ditto old iron ditto, 10t.	17 18 0	
Balance from last account	298 17 6	
Total	£6612 9 3	

By balance, 668t. 11s. 6d.; subsist, 221t. 10s.; 50 tons of copper ore, 300t.; reserve fund, 619t. 1s. 6d.

[The mining captain's report will be given at length in our next Journal. The resolutions passed by the meeting will be found in our advertising columns.]

HOLMBUSH MINING COMPANY.

The annual general meeting of shareholders was held at the Mining Offices, 8, George-yard, Lombard-street, on Wednesday, the 29th of March.

A brief report from the directors was submitted, with a statement of accounts to the end of 1847, and full reports on the mine, which were personally explained by Capt. W. Lean, the company's agent, to the satisfaction of the shareholders present. The directors stated, that the general fall in the value of mining produce had seriously affected the amount of the returns during the past year; and that, knowing the importance of pushing on the workings with vigour, in order to accomplish as rapid a development of the mine as practicable, they had employed an adequate number of tutwot men—the result of which was manifesting itself in the larger returns of lead ore, with prospects of considerable increase from the lead lode, by the further extension of the levels. The value of the lead being great (the last sale being at 187. 1s. 6d. per ton), a few additional tons per month would produce a satisfactory result. Good expectations are also entertained of the operations on the flap-jack lode.

The accounts showed a total expenditure, from Jan. to Dec. inclusive, of 8562t. 14s. 1d., with returns from copper ore, 4162t. 1s. 1d., and from lead, 1087t. 18s. 9d.; with calls, 2000t., and a previous balance of 196t. 8s. 6d., left a balance against the mine of 1116t. 7s. 9d. Since then the balance from calls, due Jan. and March 1848, and sales of lead and copper ore, would, after paying Jan. and Feb. cost, reduce the balance against the mine to about 800t.

The mine report describes the lead lode as opening productive ground in most of the levels, though varying much in the quantity of lead ore it contains. The winze sinking under the 100 fm. level was reported to be worth 15t. per fathom, and had improved since the report was written to 20t. per fathom. This winze, being 12 fms. in advance of the 110 fm. level, offers a fair prospect; and the levels are being driven through favourable ground. The flap-jack copper lode (or the branches now driving on east, which are expected to be identical with that lode) is at present unproductive. It is strongly recommended to continue the driving east to the intersection, with the great cross-course, a distance of about 25 fms., and to prove the lode to the east thereof, where it will be parallel with the highly-productive part of the old Holmbush copper lode, and also with the Kelly Bray lode, in the Callington mines, lying, in fact, between both. The mine had been deepened, since the last annual meeting, to the 132 fm. level, on the branches into which the Holmbush lode is at that point divided; and it is intended to continue the sinking below this level.

The reports and accounts were unanimously adopted, the retiring directors and auditor re-elected, and thanks voted to the directors, Capt. Lean, and the chairman.

SOUTH ROSKEAR MINING COMPANY.

A meeting of adventurers was held on Tuesday, the 21st March, when the accounts for December and January were presented, showing—Labour cost, 811t. 18s. 8d.; merchants' bills, 834t. 19s. 9d.; interest and commission on advances, 200t.—1346t. 15s.—By sale of ore, Jan. 6, 1004t. 2s. 3d.; sale of old timber, 12 17s. 2d.; discount on oil, 15s. 6d.—leaving balance due to pursuer, 340t. 0s. 1d. The accounts having been examined were allowed; and the report of the finance committee received and adopted. It was resolved, that a copy be forwarded to each shareholder, accompanied by particulars, showing amount of calls due from each adventurer; and that notice be given that interest will be charged and insisted upon in respect of the sum due, if not paid on demand; and that legal proceedings be adopted by the committee to recover all sums not so paid.—Messrs. E. W. W. Pendaves and H. Williams are to be added to the committee, who are to have control over the future receipts and expenditure of the mine; an account, for such purpose, to be opened with the Miners' Bank, but which is never to be overdrawn beyond 200t., without the directions of the adventurers, at a public meeting.—The balance due pursuer was then divided, and a call of 22 18s. 7d. per share made to pay it.

The following is the report of the finance committee:—Your committee, conformable to the authority specially vested in them, received the bills for the last sale, amounting to 1004t. 2s. 3d., and placed the same in the names of the committee at the Miners' Bank, out of which they have paid the labour cost due. Your committee have also gone carefully into the accounts of the mine, taking them up from a date antecedent to the mine getting into debt—a statement of which, upon the end of Jan. last, is now before you; also a statement of the assets and liabilities, so far as your committee have been able to ascertain them; for, while they have no reason whatever to doubt the correctness of the accounts laid before them, they regret to have to report, that in the keeping of the accounts generally, that care in the preservation of vouchers has not been observed which a business-like habit requires. One item for timber, 100t., in the accounts previously submitted to the adventurers, having been urged

on the special notice of your committee, they have, as far as practicable, gone into the same; and looking at the quantity of timber charged from July 1847 to end of November 1847, 552 loads, as near about the fairly computed consumption during that period, the committee cannot bring themselves to attach any other blame to the pursuer, on such account, than the neglecting to bring forward the same from time to time as the debt accrued. The disposition of your pursuer to forbear from the certainly unpleasant duty of making divisions of costs as the book became in debt, arising doubtless from an over sanguine expectation of better returns from the mine, has materially led to heavy charges for interest on the large sums advanced by the pursuer, and which, in common justice, must be allowed him, inasmuch as that the adventurers have had the benefit of the borrowed capital; and further, it must be admitted, that although at each bi-monthly meeting, held in the course of the last three years, a heavy debt has been shown, yet no resolution was ever come to by the adventurers to liquidate the same. In the account now before you the interest charged to end of 1846 only appears, your committee having thought proper not to charge the amount claimed for 1847 without your previous sanction; this applies also to sundry other claims for supplies, amounting together to about 130t., there being no invoices for such goods. In the general accounts of the labour cost, a due discrimination appears to have been used, both in the subside and in the delivery of materials to the men, the debts owing on such accounts being comparatively small. The next subject which has engaged the anxious attention of your committee, is the arrears of cost, which, owing to the heavy amount of the same so suddenly called for, and the depressed state of the money market, many of the adventurers have been unable to respond to; and however painful such a course must be to your committee, they feel bound to recommend that positive instructions be given to your solicitor to enforce, by legal proceedings, the earliest possible settlement of such arrears, either by payment of the same, or forfeiture of shares. In conclusion, your committee would recommend that the collection or settlement of such arrears, and the liquidation of the debts of the concern, be left in the hands of the finance committee.

To balance in hand, end of May, 1844	£112 7 11
Amount received for ore sold from above date	25,697 15 11
Amount of calls	6,161 7 11
Balance	340 0 1
Total	£27,211 11 10

By labour cost from June, 1844, to end of Jan., 1848	£22,977 9 3
Merchants' bills—same period	8,795 6 8
Dues on ore	207 7 6
Interest on advances	331 8 5
Total	£32,311 11 10

ASSETS—Due from adventurers: unpaid calls	£2814 15 5
Subsist advanced	247 7 2
Total	3062 2 7
LIABILITIES—Due to merchants	£1326 19 2
Due to the pursuer	1735 3 5
Total	3062 2 7

WEST WHEAL MARIA MINING COMPANY.

The two-monthly meeting of shareholders was held at the offices, St. Michael's-alley, Cornhill, on Thursday, the 30th March, pursuant to notice convening the same.—The following abstract of accounts was presented and passed, with many well-merited encomiums on the proceedings of the committee of management, for the ability and zeal which they have displayed in bringing the financial affairs of the company into their present satisfactory position:—

To balance of liabilities, as per statement of 27th January	£1294 14 3
Costs for Dec., 1847, and January and February, 1848	318 0 5
Total	£1612 14 8
By payments made by the committee since 27th of January	£717 7 5
Balance due	895 7 3
Total	£1612 14 8

Assets and Liabilities.		
To liabilities brought down	£895 7 3	
By cash at bankers	£305 1 1	
Other securities	90 0 0	
Balance	500 6 2	
Total	£895 7 3	

Against this debt of 500t. 6s. 2d., are arrears of old calls, considered good, 500t.; and about 320t. 10s., still due on last call.

The following is the agent's report:—March 28.—At your request, I beg to inform you, the western engine-shaft is down below the 64 fm. level about 6 fms.—ground much the same as last reported. In the stop in the 34 fm. level, west, there is more work to complete than I anticipated; the end of which we hope to reach by the middle of this week, and resume the driving on what I suppose to be the Wheal Williams' lode. I would recommend to you the driving of the 64 fm. level west, on the north lode, as this is counting very much; and I am of opinion, that there are other east and west lodes, which will fall in with the above, in driving in this direction; and I think there is a greater probability of discovering ore than by driving east in the 54 fm. level, as this level is driven with 13 fms. of the eastern engine-shaft, and the 38 fm. level, driven west from this shaft about 11 fms., in which there is a very large kindly-looking lode, about 5 ft. wide, producing good stones of ore; consequently, the 54 fm. level is not driven far enough to get under this ore ground, to which you referred in your letter.

The shareholders unanimously expressed themselves highly pleased with their present and future prospects, and especially as regarded their monetary affairs, which had been, previously to the committee of management taking the same into their own hands, in a very perplexed and confused state.

WEST WHEAL SETON MINING COMPANY.

A tri-monthly meeting of adventurers was held at the mine, on Tuesday, the 28th March, when the accounts were examined and passed, showing—Labour cost for Dec., Jan., and Feb., 610t. 10s. 6d.; merchants' bills, 317t. 12s.; balance at last meeting, 432t. 5s. 8d.—1360t. 8s. 2d.—By call, 1000t., leaves balance against the adventurers of 360t. 8s. 2d.—A call of 5t. per share was made; and it was resolved, that a sum of 25t. be paid Capt. John Lean for his attention to the mine, and 5 guineas per month from Jan. last; and that Capt. John Toy be paid 7t. per month from the same date. The following report was then read:—

In forwarding you a report of this mine, and its present operation, I beg to state, since our last meeting of the adventurers, the north shaft has been sunk from the 18 to the 20 fm. level, and the 20 fm. level extended 2 1/2 fms. east—the lode is 2 ft. wide, composed of spar, mundle, and kiles; the west end is driven 7 ft. from the shaft, where we have intersected a part of the cross-course, and leaving down a large stream of water; these two levels are at present suspended, and will be for a short time, until the water decreases—being obliged to work the engine quicker, to keep this part of the mine drained, than was necessary for either one of the south shafts, where six men are driving the adit, south of the north lode, on the cross-course at 4t. per fm. The engine-shaft is sunk 8 fms. below the 20 fm. level, in which we have eight men and four boys at 23t. per fm. Six men are driving the adit, west of the engine-shaft, at 5t. 10s. per fm. Should the ground continue favourable for driving, as it is at present, we hope to communicate with the adit, driving south from the north lode, in about six weeks: the south shaft is sunk 4 fms. below the 30 fm. level—the lode is 8 ft. wide, composed of capel, spar, prisms, blende, and mundle, together with large stones of rich ore—six men, at 14t. per fm., to complete the shaft to the 40 fm. level; the 30 fm. level is extended about 6 fms. west—the lode is 6 ft. wide, composed of capel, blende, prisms, and mundle, with good stones of ore scattered throughout the lode; there are four men driving a cross-cut north in the 30 fm. level, to intersect the caunter lode, at 5t. 10s. per fm., which we hope to see in about 4 fms. driving. There are six men driving the 18 fm. level, west of the shaft, on the south lode, at 6t. per fm.; it is 6 ft. wide, composed of capel adit ore, which will leave tribute ground. There are, likewise, four men sinking a winze under the adit, on the south lode, at 6t. per fm.; this winze is 16t. fms. below the adit, or 24 fms. under the winze plat. Our prospects are still very encouraging.

WHEAL ANDREW AND NANGLES MINING COMPANY.

A meeting of shareholders was held at the mines, on Monday, the 20th of March, when the accounts were presented and examined, showing—Balance at last account, 571t. 17s.; Jan. cost, 520t. 4s. 8d.; Feb. cost, 321t. 9s. 10d.; merchants' bills, 300t. 5s. 3d.—1713t. 16s. 4d.—By division of loss, Jan. 17, at 2t. 8s. 8d. per share, 571t. 16s. 8d.; copper ore sold, Jan. 27 (less dues), 329t. 1s. 8d.; black-jack ditto, Feb. 10, 51t. 17s.; mundle ditto, 20t. 6s. 2d.; black tin ditto, March 18, 177t. 5s. 10d.; leaving balance, 669t. 9s., which was divided and collected. In consequence of the heavy outlay incurred in working the mine, together with the prospect of considerable losses for some time longer, it was resolved—That the pursuer be instructed to ask the lords to assist the adventurers in carrying out the trials now being made, by remitting the dues, until the mine shall be placed in a profitable state of working.—The following report, from the mining captain, was read to the meeting:—

Since the last meeting of adventurers, the whim-shaft has been communicated to the 100 fm. level. The engine-shaft is now in course of being sunk under that level, and is down 2 fms. The 100 fm. level has again been commenced driving east and west—the lode in both ends being about 18 in. wide, yielding some ore, and has a favourable appearance. In the cross-cut south, in the 80 fm. level, some branches have been intersected, underlying north; but last week a lode was met with, having a south underlaying 18 in. wide, composed principally of soft spar, with spots of ore, and, altogether, the appearance is very encouraging; some uncertainty exists as to whether this lode has been discovered in any other part of the mine or not; its situation is just where Debbie's lode was expected to be seen, but its underlay, and the stuff of which it is composed, are both different from that lode—we are now opening eastward on it, and shall shortly be able to say more about it; the cross-cut will be resumed driving southward soon. The 70 fm. level, east from Bread and Cheese shaft, has been driven through ore ground for about 7 fms. in length during the past two months; and, although it has not been quite so productive lately, it is yielding about 2 1/2 t. of ore per fm. Bread and Cheese shaft has been sunk to the 80, and we are now driving that level east; the lode in it is large, with some ore, and we think it will be more productive shortly. Having reason to believe that there is another lode further south, in the 60 fm. level, at this shaft, we again commenced driving in that direction soon after the last meeting; several branches have been met with, and we are of opinion, that the end of the level is not far from a lode. On the north lode, west from the engine-shaft, the ground has been opened in the 40 and 50 fm. level, yielding, on an average, about 1 1/2 tons of ore per fm.; and the 70 and 80 fm. levels have also been driven through ground, which will be worked at high tribute. At this time, the most productive levels are the 40 east and west, and the 50 west, which are each yielding about 1 1/2 tons of ore per fm. The 80 fm. level also continues to produce small quantities of ore. The 46 fm. level, east from Dunstan's shaft, has a lode in it about 2 ft. wide, which will be worked at a moderate tribute. It will be observed, by the statement which we have just given, that our operations, during the last two months, have been attended with success; but, on the whole, the returns have not been sufficient to enable any considerable addition to the returns to be made, and, consequently, a further outlay, on the part of the adventurers, will be required. We

cannot, however, help remarking, that the changes which have lately taken place in the prospect of the concern are such, as would encourage them to persevere with the trials that are making, as we still feel great confidence that some of them will ultimately prove successful.

WHEAL BLENCOWE MINING COMPANY.

A meeting of adventurers was held at the mine on Tuesday, the 21st March, when the accounts were presented, showing—Balance due pursuer 21st December, 181t. 10s.; cost for December, 145t. 11s. 11d.; January, 117t. 7s. 5d.; February, 90t. 18s. 2d.; merchants' and other bills, 84t. 16s. 11d.—620t. 4s. 5d. By sale of tin, Feb. 5 (less 1-15th dues), 94t. 17s. 11d.; sale on the 16th March (less dues), 101t. 15s. 5d.; carriage of tin, 2t. 19s. 6d.; received on arrears of calls, 103t. 4s. 9d.; on account of call made 21st December, 136t. 2s. 10d.—leaving balance due to pursuer, 181t. 10s., to pay off which a call of 15s. per share was made. It was resolved, that legal proceedings be taken against defaulting shareholders; and that, "in future, the names of all parties in arrears with their cost, with the amount due from each, be stated in the circular containing the quarterly account."—The following agent's report was read to the meeting:—

The 30 fm. level is now driven about 14 fms. north, towards the east and west lodes—a very hard stratum of ground, which we met with in driving that level, has considerably retarded our progress; but within the last fortnight the ground has become much more favourable, and a greater length can now be driven in one week than could have been driven in a fortnight. In driving the 15 fm. level, on the run of the north and south lode, we have cut an east and west course, which in the 10 fm. level we considered to be nothing more than a small branch, but we can now safely pronounce it to be a lode of a very promising character; it is about 16 in. big, seems to be very regular, and has an underlay of about 2 ft. in a fm.—its direction is nearly parallel with the other east and west lodes. The tin from this lode is of a quality much superior to that found in the north and south lode, and it can be rendered marketable at a much less expense. The extraordinary rich stones of tin now before the adventurers afford a strong hope that this lode will prove valuable. The east and west lode, nearest the new shaft, is altogether much the same as when I reported on it at the last meeting. We do not purpose for the present to extend further on this lode at so shallow a level, as this and the other east and west lodes will be intersected and proved by the 30 fm. level, which it is our object to drive with the greatest possible despatch.

WHEAL WILLIAMS MINING COMPANY.

A meeting of adventurers was held at Farquharson's Hotel, Truro, on Friday, the 24th March, when the statement of accounts, presented and passed, showed a loss to the end of Feb., amounting to 220t. 13s. 10s., being 17s. 8d. per 250th share, when a further call of 1t. per share was made for the further prosecution of the mine, making 1t. 17s. 8d. per share, to be paid immediately into the Miners' Bank, Truro. The captain's report (copy of which we have not received) represents the mine in a satisfactory and progressing position.

WEST WHEAL BASSETT.—At a meeting of adventurers, held at the mine on the 27th March, the accounts were examined and passed, showing—Costs and merchants' bills for four months, 629t. 1s. 9d.; by copper ore sold (less dues), 81t. 16s. 5d.; leaves a loss of 547t. 5s. 4d.; to which, add balance due to pursuer in Oct., 359t. 5s. 7d.; leaves balance against the mine of 906t. 10s. 11d.; from which deduct for calls, 640t.; leaves balance against adventurers of 266t. 10s. 11d.—It was resolved, that the above balance be divided and collected immediately; and that, in default, the pursuer be directed to take legal proceedings to recover the same. That in consequence of the great increase of water, and the almost impossibility of sinking the engine-shaft, all the levels below the 42 be suspended, and that that level be driven east and west, to cut other lodes.

SOUTH CARADON.—Abstract of accounts to the end of December, 1847:—To amount of November and December costs, 4234t. 18s. 9d.—By copper ore sold 30th Dec., 1847, and carriage on ditto, 2613t. 5s. 6d.; ditto 27th January, and carriage on ditto, 2673t. 10s. 8d.; sundry receipts for materials, 13t. 9s. 3d.—5300t. 5s. 5d.; showing profit on two months, 1065t. 6s. 8d.—add balance from last account, 439t. 4s. 10d.—1504t. 11s. 6d.—By dividend of 10t. per 128th share, declared this day, 1280t.—leaves balance in hand March 28, 224t. 11s. 6d.

BALLESWIDEN MINE.—A week or two since, we stated that at a meeting of the adventurers in this mine, it was seriously thought of suspending, for a time at least, a portion of the workings of this extensive undertaking, and that the subject was deferred for further consideration, to a special meeting, fixed for Tuesday last. As might have been expected, considerable anxiety was manifested in this neighbourhood as to the result. We have now much pleasure in being enabled to state, that the spirited adventurers, at the meeting on the 21st inst., resolved not only not to abandon, but also not to suspend their operations, although the present very low price for the article they produce (refined tin) is such as does not reimburse them for their enormous outlay—(nearly 800,000t.)—in fact, the receipts will barely meet the current expenses; but it appears, out of pure philanthropy for the working classes, the adventurers have come to the determination we have mentioned. Too much commendation cannot be given to such a praiseworthy proceeding; and sure we are, that the workpeople employed in this concern will not undervalue the kindness and attention which have thus been shown to them, when employment, as they well know, is so very scarce in this neighbourhood. We also trust that they will not—in fact, we feel very confident that they will not forget their county motto, but will, "one and all," do their best to promote the welfare and interest of their benefactors. We believe that the number of hands employed in this mine, in the year 1847, and who received monthly pay, was, on an average, about 650; so that, taking into account the wives and families dependent on them for their daily bread, a population of not less than 2000 would have been almost, if not entirely, dependent upon the parish, or have subsisted on the charity of the neighbourhood, had the adventurers decided on a different course to that mentioned, and we sincerely hope that they will meet with a suitable reward. We cannot forbear remarking, and must crave the pardon of the gentlemen to whom we are about to allude, for making mention of his name, that every individual employed at Ballewidien, is greatly indebted to the respected pursuer, Mr. R. V. Davy, for the manner in which he has, for so long a period, carried out the duties of his office. The adventurers know, and duly appreciate his efficient services. It is right also that the workmen should, as we have every reason to believe they do, feel much indebted to him, not only for his general urbanity, but likewise for his speculative spirit, and expressed desire to keep "the bal going." The miners will well understand this. Since writing the above, we have been put in possession of a few facts relative to the monthly expenditure of this mine for the past year, from which we are more than ever impressed with the importance and value of such an undertaking as Ballewidien, and we again say—success to the adventurers. The following is the monthly expenditure at this mine:—Wages, 1575t. 8s. 2d.; coals, 170 tons; timber, 40 loads; powder, 2 tons; safety fuses, 600 coils; candles, 290 dozen; oil, 30 gallons; tallow, 4t.; iron castings, 4t. tons; wrought iron, nails and steel, 3 tons. And the total outlay for the year 1847, was the large sum of 29,120t.—Penzance Journal.

ACCIDENTS.

Eagle's Bush Colliery, North.—On Wednesday evening last, a dreadful explosion took place here, while between 25 and 30 colliers were at work, 19 of whom were hurried into eternity. How the awful affair was caused has not yet been ascertained, but it is feared to have been from the reckless use of a naked candle.

Danely, Salop.—A dreadful accident took place in the Lodge Pit, the property of Mr. Bortfield, on Wednesday morning last, by which eight lives have been suddenly lost. The eight men in question, about five in the morning, were descending to their work and had descended only about 50 yards, when the main shaft broke, and all were hurled to the bottom—the whole mass of machinery falling on them, and shockingly mutilating them. The jury on the inquest, found that the iron which broke was defective.

East Wheal Rose.—On Tuesday, as John Clemow and J. Francis were at work in the 70 fm. level, in Penrose's shaft, they were crushed by a fall of earth—Clemow was taken out dead, the other much injured.

Creag Brues Mine.—On Monday last, a lad, whilst going underground, fell out of the ladder, about 3 fms., and alighted on the head of an old man, named Dunn, who, with others, was waiting on the "Ladder Soller" for a light. The boy was unhurt; but the old man received such severe injury to the upper part of the spine, that J. Moyle, Esq., surgeon, of Chacewater, who was immediately in attendance, pronounced his case to be hopeless.

Bigge's Main Colliery, Long Benton.—J. A. Campbell was killed by falling down the staple of the C pit.

Bildin.—S. Harbut was killed by a fall of coal while working in Mr. Bagnall's field.

Kingwinford.—Fatal Accident to a Manager.—On Wednesday last, as Mr. T. Westwood, manager of a coal pit in Nacerefield, belonging to Messrs. Firminstone, was engaged in taking a tree out of the working, a large quantity of coal suddenly fell upon him, and covered him. His cries for help brought the workmen in the pit to his assistance, and he was taken from beneath the coal as soon as possible. His back and his left arm were broken, and when got out he was quite dead. An inquest was held on the body on Friday last, when the jury returned a verdict of "Accidental Death."

Nagarsfield Colliery, Kingwinford.—Wm. Darby, a youth, intended for an engineer, while working with his father, fell backwards from a ladder, and struck his head against an iron plate, from the effects of which he died.

Parkfield Colliery, Wotehampton.—W. Franco was killed by a quantity of bricks falling from a skip, while descending the shaft of the colliery.

Llyn.—T. Edwards was killed by an explosion of fire-damp in the Duffryn level—it appears that he went to the "heading" with a lighted candle, contrary to orders.

Kidw

Current Prices of Stocks, Shares, & Metals.

MINES.—There has been a considerable animation in the mining share market during the past week, sufficient, we trust, to compensate for the deficiency of business during the last month.

There have been several inquiries for Devon Great Consols, East Wheel Rose, South Wheel Francis, and Treviskey and Barrier, in each of which mines some business has been done. In referring to the Devon Great Consols, we believe a great number of shares would have changed hands, if holders would conform to buyers' prices; but we should think the report of Capt. Clymo, Rule, and Opie, which we this day publish, will have a tendency to induce buyers to close their bargains, rather than withhold.

Since the completion of the East Tamar Company we find that applications for several hundred shares have been made—consequently, they have realised a premium. We understand that operations will be resumed next week, and the management of the mines will be left in the hands of James Wolferton, Esq., whose appointment reflects the highest credit upon the managing committee for their judicious discernment. Several transactions have taken place in Cwm Erfin shares (a lead mine in Wales), whose prospects have been represented as highly encouraging. Carwinning Hill shares have been revived by a demand, and several purchases have been effected, in consequence of favourable reports from the mine.

East Wheel Friendship shares have been done this week at a premium, which, we understand, arises from an important discovery made in Wheel Friendship, near the western boundary of the former set. Some inquiries have been made for Great Rough Tor, Bedford United, and Heignton Down Consols; but we are not advised of any important sales.

Shares in the following mines have changed hands this week—viz.: East Wheel Rose, West Tolgus, South Wheel Francis, Devon Great Consols, South Trelawny, West Wheel Francis, Treleigh, Great Consols, Treviskey and Barrier, Marke Valley, Mendip Hills, Tin Vale, Wheel Buckets, Cwm Erfin, Carwinning Hills, Trehana, Herodsfoot, Mary Ann, Tamar, Carn Brea, &c.

The Holmshurst Mining Company held their annual meeting on Wednesday last, a report of which will be found in another column.

The bi-monthly meeting of the West Wheel Maria Company was held on Thursday, when it was found unnecessary to make an immediate call from the pleasing position to which the committee of management had unexpectedly brought their financial accounts.

In the foreign share market we find but little business has been done—a few Altens, Asturians, Kinzigthals, and Australians, complete the list.

Despatches have been received from Copiapo and the Mexican Mines generally, reports from which we have given in detail.

RAILWAYS.—The railway share market opened, at the commencement of the week, exceedingly flat, and almost every quotation showed a reduction. In foreign shares absolutely no sales could be effected. Towards the close of the week the market was still more depressed, and a deal of stock was brought for sale, but a further decline of 2½ per share has been the result.

HULL, THURSDAY.—Our market has continued without animation. Yesterday, and the day previous, there were, however, signs of improvement, which have now vanished, in consequence of the warlike accounts from the continent.

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgh. (Mys.)	Present actual cost.	Price per share	Last Div.	1848	1847
Birkenhead, Lancashire, & Chesh.	15	706,793	37	6 p. c.	£629	—
Caledonian	130	3,584,470	26	—	3133	—
Dublin and Drogheda	35	735,635	32	3½	590	702
Dublin and Kingstown	7½	473,282	—	—	676	508
Dundee, Perth, & Aberdeen Junc.	47½	285,745	37	6	744	312
East Anglian (Lynn to Ely)	55½	1,062,742	74	6	453	—
East Lancashire	24	1,733,915	18	—	888	—
Eastern Counties	21½	7,698,370	13½	5	10567	9048
Eastern Union	50	979,526	80	—	978	923
Edinburgh and Glasgow	28	2,875,745	37½	6	8167	3243
Edinburgh and Northern	29	983,207	18	—	1116	—
Glasgow, Paisley, & Ayr	64½	1,890,547	85½	7	2025	2196
Glasgow, Paisley, & Greenock	23	838,964	16	3	920	950
Gr. Southern & Western, Ireland	110½	1,876,326	17½	—	2423	1201
Gr. Western	281½	10,970,636	88½	7	16953	16254
Kendal and Windermere	10½	169,888	23	—	104	—
Lancaster and Carlisle	70	1,895,198	43½	4	1492	—
Lancaster and Yorkshire	124½	6,807,814	96	7	6809	8240
London and North Western	428	21,513,354	126	8	34758	35428
London and Blackwall	4	1,146,289	42	1	717	860
London, Brighton, & South Coast	152½	6,087,822	29½	4	6767	5756
London and South Western	189	6,264,164	44½	8	6637	6337
Londonderry and Enniskillen	14½	160,013	16	—	127	—
Manchester, Sheffield, & Lincolnsh.	46	2,336,624	80	5	3095	1947
Marquand and Carlisle	28	924,745	39	3	666	479
Midland Great Western (Irish)	36½	8,658,004	96	7	18566	17414
Newcastle and Carlisle	66½	1,184,080	101½	6	1960	2152
Norfolk	81½	1,375,633	63	6	1673	1552
North British	78	2,514,150	20½	5	1963	1844
Shrewsbury and Chester	17	591,158	15½	—	887	334
South Devon	29	1,339,860	20	—	916	479
South Eastern	38½	6,385,318	23	6	7045	6845
Tat. Vale	38	785,507	—	5	1853	1474
Ulster	25	646,211	52	6	839	762
Whitehaven Junction	12	147,095	—	6	161	—
York, Newcastle, & Berwick	236½	3,685,102	29½	9	10035	7345
York and North Midland	230½	3,196,969	61½	10	7292	5791

Total earnings for last week, £159,500, being an increase of £19,024 over last year.

BANGOR AND COYTOMOR SLATE COMPANY. ✕

The vast, and almost incredible, demand which has been made for slate within the past few years, have been the means of projecting and establishing several new companies for working the varied beds of slate which have been discovered in the principality of Wales. But among the numerous claims which these respective companies have set forth for public co-operation, we have not observed that any of them have possessed advantages equal to the Bangor and Coytomor Slate Company, now under notice (advertisement of which appears in another column). All the requisites for rendering an establishment of this kind successful, appears to be centred here—the property being of vast extent, the slate of a durability and beauty not excelled (proved by the celebrated quarry of Col. Pennant adjoining), the easy and expeditious mode of transit to the wharf for shipment, the exclusive freehold right of quay or wharf, the facility afforded by an admirable tunnel, already excavated to the centre of the slate bed for drainage, all combined, renders it one of the most advantageous schemes that has ever been brought under public notice. The prospectus informs us, that the deposit of 2½ per share will only be required on complete registration, and that the demand of 1s. per share, fixed by the Joint-Stock Company's Act will not be called for before the company has been completely formed.

We learn that it is not uncommon to see from 150 to 200 sail waiting in the Menai Strait for cargoes of slate, and that an average from 50 to 60 vessels throughout the year wait their turns for Col. Pennant's slate alone.

The demand not being confined to Great Britain, but to all our colonies, as well as to various parts of Europe, Africa, and America, is the product of this locality—not omitting the vast contracts by the Government and railway companies; and we may further notice, as a remarkable fact, that whilst a depreciation has taken place in almost every one of our natural products, as well as manufactured articles, that this material has rather advanced than decreased in price, thereby making it a commodity of safe return. We, therefore, with these obvious advantages, safely recommend the Bangor and Coytomor Slate Company to the consideration of our friends.

LIABILITY OF SOLICITORS TO PUBLIC COMPANIES AS PARTNERS.—A case of considerable importance came before Mr. Commissioner Foulque, in the Bankruptcy Court, on Thursday last, as invalidating the claim of attorneys to public companies for their costs, when they are shareholders, and, consequently, copartners. It was in the case of the Tring and Basingstoke Railway; and it being a dividend meeting, Mr. Cook appeared on behalf of Messrs. Hill and Everill, who had been formerly solicitors to the company, to tender proof on their behalf for 4000l. Mr. Lawrence represented the assignees, and opposed the proof, on the ground that Messrs. Hill and Everill were partners, and, as such, could not prove against their copartners; the minute-book was produced, from which it appeared, that a number of shares had been allotted to Messrs. Hill and Everill. The Commissioner inquired, if Mr. Lawrence could sustain his position, would not those gentlemen be entitled to their share of the surplus, after the creditors had been paid 20s. in 12? Mr. Lawrence said, that shareholders who had paid their calls would be entitled to receive the dividends, but Messrs. Hill and Everill had not paid, and, therefore, instead of being creditors of the company, they were indebted to them. Mr. Cook replied, when the Commissioner said, nothing was more clearly established than that partners cannot prove against each other; he considered Messrs. Hill and Everill had constituted themselves partners, by the acceptance of the shares; and he should, therefore, refuse the proof; but if, in the case of Mr. Green, now before the Vice-Chancellor, a similar decision should be reversed, he would recede from this case.

PRICES OF MINING SHARES.

BRITISH MINES.			BRITISH MINES—continued.		
Share.	Company.	Price.	Share.	Company.	Price.
1000	Aberystwyth	7	2500	Silver Valley	24
512	Albert Consols	11	1100	South Dolcoath	24
1024	Alfred Consols	14	128	South Canadian	10
230	Andrew and Nangiles	11½	256	Sth. Friendsh. Wh. Ann	16
1000	Antimony and Silver— Lead Mining & Smelting	5	800	South Harvaunah	30
1694	Ballowishan	9	256	South Tolgus	30
128	Ballowishan Consols	25	256	South Trelawny	30
10000	Banwen Iron Co.	2	128	South Trelawny	16
1000	Barristown	4½	128	South Trelawny	30
4000	Bedford	24	256	South Wh. Betsey	22½
128	Beore Lead Mine	14	124	South Wh. Francis	160
1444	Birch Tor Tin Mine	9½	256	South Wh. Hope	—
8000	Blasenavon	23	1000	South Wh. Maria	22½
100	Botallack	175	256	South Wh. Sophia	11½
120	Brewer	5	10000	Southern & Western, Irish	4
10000	British Iron, New Regia.	13	280	Spearmore Moor	40
— Ditto ditto, scrip		10	256	St. Austell Consols	9
128	Budnick Consols	62½	94	St. Ives Consols	—
128	Burtly	20	128	St. Michael Peakival	5
100	Bwch Cwmeria	20	999	St. Minver Consols	1
128	Calstock	17	1000	Stray Park	43
1000	Callington	18	3000	Tamar Consols	3
30000	Cameron's Steam Coal	4	1244	Trevelyan Consols	4
256	Caradon Copper Mine	9½	6000	Trevelyan	7
256	Caradon Mines	22½	1000	Tin Vale	11
256	Caradon United	24	128	Toburnbury	147½
256	Caradon Wh. Hooper	21	256	Trehane	2
1000	Carn Brea	15	5000	Treleigh Consols	6
3000	Carthorpe Consols	14	2000	Treunace	2
10000	Cascade	1	56	Treunace	10
128	Charlesworth	230	120	Trevelyan	210
166	Clithell	9	120	Trevelyan	16
512	Coalville Hill	4	120	Trevelyan and Barrier	130
1900	Combustion	7½	128	Trevelyan	14
500	Combustion	5½	100	Trevelyan	350
128	Comfert	45	256	Wellington Mines	15
256	Condarrow	20	128	West Basset	45
2560	Cook's Kitchen	14	256	West Canadian	30
2048	Countess Tin Mine	4½	128	West Cargill	2
10000	Coombe Valley Quarry	2	512	West Fowey Consols	40
6500	Cornish	2	256	West Providence	9
1000	Copper Bottom	18	2000	West Seton	40
1024	Cosheen	42	120	West Seton of South & Western Iron Co.	210
124	Cradock Moor	16½	120	West Trellehall	8
128	Creag Braws	120	256	West United Hills	5
5000	Cubert Mine	124	256	West Wh. Friendship	9
10000	Cwm Erfin	1	256	West Wheel Jewell	11
2048	Dartmoor Consols	2	2000	West Wh. Maria	3
300	D. Prior & Buckfastleigh	14	256	West Wheel Shepherd	5
7500	Demelza Mines	2	256	West Wheel Tolgus	21½
7100	Derwent	8½	256	West Wheel Treasury	19
1024	Devon Courtenay Con.	7½	256	West Wheel Trevelyan	5
1024	Douvo Great Consols	1	184	Wheel Adamant	51
1000	Diuride	20	1000	Wheel Albert	10
186	Dolcoath	80	256	Wheel Acland	13
2560	Drake Wells	4	256	Wheel Allen	2
10000	Durnham County Coal	45	240	Wheel Anderson	21
3000	Dyfnan	10	128	Wheel Ann	—
256	East Alverney	10	512	Wheel Ann, Bridford	1
112	East Caradon	47	1024	Wheel Anna Maria	3½
2048	East Crowndale	54	120	Wheel Bal	4½
512	East Comb Silver-Lead	64	2560	Wheel Barbara	4½
128	East Comb Silver-Lead	64	256	Wheel Benny	104
100	East Reliance	22	256	Wheel Blaucoque	21
94	East Wheel Albert	1	256	Wheel Buckets	20
1024	East Wheel Fortune	2	256	Wheel Calstock	3
1024	East Wheel Friendship	3	136	Wheel Clifford	190
128	East Wheel Rose	60	1024	Wheel Coal	—
2048	East Wh. Rough Tor	2	6000	Wheel Courtenay	—
128	East Wheel Seta	14	256	Wheel Curlew	3
256	Elborough	14	256	Wheel Dyke	13
256	Exmoor Wh. Eliza	24	256	Wheel Fortescue	64
512	Fowey Consols	40	2	Wheel Frederick	2
6400	Gadair	2	288	Wheel Franco	27
20000	Galvanised Iron Co.	10	128	Wheel Harriet	45
4000	Gen. Mining Co. for Irel.	14	256	Wheel Jane	21
2048	Georgia Tin Mines	12	256	Wheel Lonsia	8½
6500	Gossauera	32½	112	Wheel Margaret	75
128	Gontroa	4	256	Wheel Mary Ann	5
244	Grambler & St. Aubyn	10	256	Wheel Mary Consols	40
1000	Great Consols	1000	210	Wheel Prospect	41
256	Great Callistock Moors	22	120	Wheel Reeth	10
256	Great Mitchell Consols	11	128	Wheel Rose	60
256	Great Resugga Moor	11	2048	Wheel Samsom	3
3000	Gr. Wh. Rough Tor	12	99	Wheel Seton	214
10000	Grosvenor	45	256	Wheel Sisters	30½
256	Gwnear Consols	7	128	Wheel Sophia	54
6000	Heignton Down Con.	1	256	Wheel Spearne	10
256	Herodscombe	54	128	Wheel St. Andrew	16
256	Herodsfoot	18	— Wheel Trescoll	9	
10000	Hillierian	124	260	Wheel Trelawney	74
239	Hobbs Hill	6	256	Wh. Tremaine (St. Ervan)	44
10000	Holmshurst	15	256	Wheel Treunayne	35
827	Kirkcudbrightshire	54	128	Wheel Trew	20
500	Lady Elizabeth	5	256	Wheel Trevena	8
2048	Lamberose Wh. Maria	11	52	Wheel Tryphena	140
128	Lant Consols	90	128	Wheel Veland	29½
160	Levant	—	256	Wheel Verrazani (Ferraz)	—
10000	Levant	15	184	Wheel Vyvyan	60
10000	Liwyn Males	5	256	Wheel Williams	6
3000	Llynvi Iron	50			
256	Lostwithiel Consols	10			
6000	Marks Valley	10			
5000	Mendip Hills	24			
5000	Merionethshire Slate	12			
— & Slate Slab Co.		2			
20000	Mining Co. of Ireland	7			
256	New East Crowndale	31			
128	North Fowey Consols	37			
1000	North Pool	45			
140	North Rooker	34			
256	North Wh. Abraham	1			
256	North Wh. Leisura	14			
128	North Wh. Providence	24			
10000	Northern Coal Co.	23			
128	Par Consols	—			
4000	Pennant	14			
1000	Penryn	20			
1280	Penryn St. George's	13			
128	Penryn Wh. Virginia	24			
512	Plymouth Wh. Yeoland	64			
256	Polsoath Consols	44			
112	Providence Mines	35			
10000	Rhymney Iron	50			
1280	Rhymney Iron	50			
2560	Rhymney Iron	50			
256	Rose Consols	10			
1000	Rosewall Hill	1			
256	Rosewarra Mines	—			
Shotts Iron Company		80			

NOTICES TO CORRESPONDENTS.

It will at all times save much trouble, and frequently considerable delay, if communications are simply directed—

To the Editor,
Mining Journal Office,

26, FLEET-STREET, LONDON.

Also, to avoid trouble, Post-Office Orders should always be made payable to WILLIAM SALMON MANNELL, as acting for the proprietors.

A pressure of mining intelligence, at a late hour, compels us to postpone several articles intended for publication; and the letter of our Paris correspondent, and several leaders.

CARRE MINING COMPANY.—In our report of the meeting of shareholders, held on Friday the 24th March, in our last Number, an error crept in. We stated, that out of the 20,000l. dividend in 12 months, 20,000l. was anticipated in the previous annual amount: such, we are informed, was not the fact—20,000l. were paid between March and March, the last 20,000l. of which will appear in the accounts of 1848.

GREAT WHEAL FREDERICK MINE.—Having received several communications from parties, with reference to certain proceedings connected with this mine, we have only, in noticing them, or by way of reply, to state, that we have received notice of action from Mr. W. S. Thomas—that an appearance has been entered, and we await the issue. Under these circumstances, we shall stand excused from entering into the merits or demerits of the question, while our columns are at all times open to any communications treating on the subject.

We are compelled to postpone Dr. Ansted's Lecture; also one on the Composition of Coal Gas and its Combustion, delivered by Dr. Hofmann, at the Royal College of Chemistry, on Monday last—both of which will appear in our next.

THE MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, APRIL 1, 1848.

The first quarter of the year 1848 having now expired, we, as usual, present a summary of the sales of copper ores in Cornwall and at Swansea. At the several sales by public ticketing in the county, there have been sold 35,662 tons, producing 195,212l. 15s. 6d.—showing a reduction from the produce of the last quarter of 5287 tons, and in money 25,189l.—the latter having been 40,949 tons, and 220,401l. 15s. 6d. The average produce has been, in both cases, the same (8½); while the standard increased from 96l. 18s. 6d. to 97l. 13d., and the average price from 5l. 10s. 6d. to 5l. 11s. The actual falling off in the produce will be seen to be upwards of 12½ per cent. The above quantity of copper ores were purchased by the several smelting-houses, during the quarter, as follows—viz:

	Tons.	Amount.
Mines Royal	2076	£9,579 9 6
English Copper Company	763	3,244 17 10
Vivian and Sons	7847	43,560 10 0
Freeman and Co.	5542	28,559 1 10
Grenfell and Sons	5367	23,852 14 7
Crown Company	284	1,531 6 2
Sims, Williams, and Co.	5498	29,137 14 9
Williams, Foster, and Co.	8265	55,347 0 3
Total	35,662	£195,212 15 6

The total amount of ores sold at Swansea in the past quarter have been 10,363 tons, and realising 148,502l. 5s.—being again a reduction on the quarter of 2115 tons, and in money 15,344l. 3s. 6d., or nearly 15 per cent.; the quantity in the quarter ended Christmas last having been 12,478 tons, and in money 163,846l. 8s. 6d. The ores were purchased by the different companies as follows—viz:

	Tons.	Amount.
English Company	207	£3,898 15 0
Freeman and Co.	268	5,756 19 6
Grenfell and Sons	1353	19,357 13 6
Sims, Williams, and Co.	1298	19,532 4 9
Vivian and Sons	2977	34,550 11 6
Williams, Foster, and Co.	3131	45,016 17 9
Mines Royal	664	12,864 13 6
Messrs. Schneider	186	1,458 12 0
Benj. Smith	310	8,065 17 6
Total	10,363	£148,502 5 0

The copper ores sold during the quarter, being the produce of the different foreign mines mentioned below, are as follows—viz:

	Tons.	Amount.
Colbre	3889	£48,496 16 6
Chili	849	30,147 11 0
Australia	1147	29,868 4 0
Cuba	1647	17,699 13 0
Copado	74	1,507 15 0
New Zealand	48	320 5 0
Santiago	12	212 2 0
Total	7460	£128,252 6 6

The following is a list of ores sold from the Irish copper mines—

	Tons.	Amount.
Knockmahon	1101	£6,532 3 0
Berehaven	904	6124 13 0
Holyford	2316	4416 18 0
Ballymurtagh	264	767 19 0
Lackamore	61	458 6 0
Cronebane	54	216 18 0
Tigrony	3	62 2 0
Total	2619	£8,579 19 0

We must defer until our next, the usual list of the Cornish copper mines, with their produce and amount of money returned.

The Cost-Book System is a subject which has been so frequently treated upon in our columns, and the several points raised, from time to time, by correspondents, met by explanatory remarks, that it would appear hardly necessary again to revert to the subject, but that we find some of the most simple rules misunderstood and confounded, even by parties whom we should naturally have supposed best acquainted with its principles; while the variety of questions submitted tend only to confuse—the opinion given being in accordance with the nature or mode in which the question is propounded. We are induced to give insertion in another column to a series of resolutions which we have copied from a cost-book, which appear to embody the main features presented by the Cost-Book System, and which, as we are given to understand, are found to work well, while the equity pervading the whole would appear to us to be strictly in accordance with the principles on which the system is founded.

In the Journal of the 18th inst. a correspondent puts the question, whether it is not an universal custom for a shareholder to have a vote for each share held by him—to which a note was appended, stating, that there were instances whereby the number of votes possessed by the several adventurers, in accordance with the number of shares they might hold, was a matter of arrangement; as five shares might represent one vote; ten shares, two votes; and so on. We may here observe, that the remarks appended to the letter referred to, are doubtless calculated to mislead parties not conversant with the Cost-Book System; and, at the same time, would appear at variance with the principles we have ever laid down: a word or two, however, will set the matter right; and this we feel called upon to do, as the error was only noticed when too late.

We regret any expression on a subject of so much importance should be construed in any way calculated to mislead; inasmuch that the fact is notorious—every share represents a vote; and, hence, property is fairly represented. Having had our attention drawn to the subject by more than one out-adventurer, as well as by parties more immediately located in the vicinity of the mines, we will at once quote a letter before us, which is so clearly written, and so well defines the principle, as to convey all that we could ourselves express:—“A mine, when divided into its number of shares, and worked upon the Cost-Book System, represents an equal number of votes; each share represents one vote, and it matters not in what number, or by whom such shares or votes (for the terms are, in this respect, synonymous) are held. Resolutions at mine meetings are not carried by a show of hands, but by a majority of shares; indeed, were it otherwise, it can readily be conceived that nine-tenths of the interest in the mine might be held by the minority, so

far as the number of individuals was concerned; and hence, a power would be vested in the holders of one tenth to rule and govern the affairs of the company in which they possessed comparatively so insignificant an interest.” To all this we accord our assent; and, indeed, it would be frightful and destructive of that confidence which is based on the Cost-Book system, were it otherwise; property is, we repeat, as it ever should be—so far as relates to the working of our mines in Cornwall and Devon—fairly represented. Every individual share carrying with it its vote. While on the subject, it behoves us to notice a letter which appeared in our last, from “A Subscriber,” and headed “East Wheal Friendship, and East Birch Tor Mining Companies;” and here we must needs quote our correspondent's letter that we may not be misunderstood; and, moreover, that he may have fair play. He says, “A short time since, the ‘East Wheal Friendship Mining Company,’ published its prospectus *in extenso*, and therein declared, for the information of the desired proprietors, that, under the Cost-Book Principle, a shareholder who availed himself of his liberty to withdraw from the mine, could demand his portion of the value of the property, and all machinery, &c., by giving notice to the purser or secretary to that effect. I intended (says our correspondent) at the time to have requested your exposure of this fallacy, but it passed from my mind.” Our correspondent thus continues:—“Now, however, I find by your last Number, that the ‘East Birch Tor Mining Company’ repeats this monstrous absurdity. Surely (says he) this is a way to prevent, rather than induce, capitalists and others to embark in mining undertakings; for who would submit to the power of a minority to rule the majority? Even worse than this would be the effect. Any individual shareholder, according to the opinion of the executives, might compel a company to cease operations, or sell the property, that he might have his portion of everything.”

Our correspondent then goes on to say, that the “principle” carries absurdity on the face of it, and which is wholly at variance with the cost-book. He then tells us, for the information of “the wise men of the East” (he most certainly having no claim to be one of the “West,”) that in determining the liability at any one time, the adventurer not only forfeits all sums of money he may previously have paid, but also relinquishes “all claim to anything which might accrue to him;” and, in conclusion, says, “it is a great pity they (the adventurers) do not obtain some correct information on the subject.”

Now for a word to our correspondent, whose letter we have quoted at so much length, as almost to preclude remark, or comment; yet we cannot allow him to be passed by unnoticed, or it might be assumed, we were equally as innocent as himself. That he wrote the letter with a well-disposed intent no doubt can, for a moment, arise; but that he is not versed in the matter at issue, or the question on which he presumes to give an opinion, must be apparent to all conversant with mining, and which can only be attributed to the absence of opportunity being afforded our correspondent, of acquiring correct information, or knowledge. Let us, then, say a something on the subject mooted, and we pledge ourselves to the correctness of the position we assume, as being supported by every practical mining agent, and those who have participated in the advantages we claim for the Cost-book System, which, it is clear, our correspondent does not comprehend, and who possibly may be a scribbler, but not a *bona fide* adventurer. Thus it is—Any adventurer in a mine can relinquish his shares, on giving notice to the purser of such his intention, paying up his proportion of all costs, or obligations, entered into, up to the end of the month, or other period, when the meeting takes place—he being entitled to claim and receive his due proportion of all ores, moneys in banker's hands, value of machinery, &c., as may be determined, on valuation being made of the same, such being done by mutual agreement, or understanding, and the money so coming to him being paid within a given period. We have here laid down the law, if the term may be used, as applying to the Cost-book System, and which is not only generally understood, but universally acknowledged. Our correspondent would lead us to suppose, that because one or two adventurers should withdraw, then, that the mine must be abandoned; but such is not the case. How is it, for instance, with the several mines, where shares may have been forfeited, or thrown up, that the number is reduced, whereby, as a matter of course, the interest of the respective parties continuing to work the mine becomes increased? The principle, the equity of the Cost-book System, is, as we have already stated, simply this:—A party having no longer any opinion, or confidence, in the undertaking, expresses his wish to withdraw, upon paying his portion of costs incurred, and, at the same time, he claims his like proportion of the materials, ores, and cash in hand. This is assented to, and it is then a matter for the consideration of the remaining adventurers, whether they will carry on the mine at their own risk, and pay to the party seceding his proportion of the value of the property on the mine, or whether they shall act upon his movement, and at once abandon the mine? This is by themselves, and is acted upon according to circumstances. We have already carried this article to a far greater length than was intended, but we would say to “One and All”—adhere to the Cost-book System—endeavour to comprehend it; for indeed, those must be dolts, who, if they give the question any consideration, would have to admit their ignorance; and such being once understood and observed, we can only express our confidence that our correspondents will not have cause to regret they embarked in mining undertakings, or that they confined their pursuits to home enterprise, rather than to the employment of capital in foreign climes.

We call special attention to the report of the meeting of the shareholders of the TIN VALE MINING COMPANY, which will be found in another column. We do so as an example to undertakings, which have for their object the development of the mineral resources of this country. At this moment, when nearly all the world is in a state of excitement, and business abroad almost wholly suspended, it is indeed necessary that every effort should be made to render our wants independent of foreign assistance. The Tin Vale Company, with a small capital, is in a fair way to produce great results. The expenditure for actual working has only been 450l.; yet, in four months, they have tin to the value of 250l. to 300l. This is a favourable prospect indeed for the shareholders, and a just reward to the enterprise displayed by the company. It is another instance of the fallacy of the argument of those unacquainted with mining, that companies with small capital are of no standing. It has been so said of Tin Vale, because there are only 1000 shares of 2l. each. The very reverse is the fact. Wheal Maria (the Great Devon Consols) started with 1000 shares of 1l., and has paid as much as 76l. per share per annum; Goginan with 100 shares of 5l., has divided 90l. per share per annum. We could multiply instances to a great extent. To the mining interests they are well known, as well as the fact that, where large sums have been invested, the returns generally have not been relatively so remunerative. Our present business is with the general reader—there being evidently a strong feeling existing to support and assist home mining; and it is, therefore, necessary to remove the erroneous impression. In a mining article, inserted a short time since, in the “City Article” of the Morning Post, it was justly remarked that—

“The statements now given furnish proof that the shares, on which the smallest amount has been paid, command generally—always relatively—the highest premium; while, in the reverse sense, the shares on which large sums have been paid up, have sustained the heaviest depreciation; but this is a principle so well known, in connection with all mining undertakings, that it scarcely requires remark.”

“It has been a commonly received opinion, that the result attending mining enterprise has been prejudicial to those engaged. That such remarks may be justly applied to under-akings in foreign countries, we do not deny; but the foregoing statements show that it is a fallacy, as a general principle, when applied to home associations. We are ready to

admit that money, to a considerable amount, has been lost, in this country, through the want of proper regulations, and incapacity, or ruthlessness, on the part of those employed to superintend. Mining affairs, however, are now totally changed. The loose system of administration, which has distinguished some mining companies, has given place to an organized and defined principle of control and limitation of responsibility, by a proper and rigid observance of the provisions of the cost-book; while the improvement in what may be termed mining engineering, is even still more marked.”

The summary, with respect to the foregoing tables, shows that, of the total number of associations—namely, 163—there are 95 at a premium, many of considerable amount, 9 at par, and 58 at a discount; the whole being divided into 257,914 shares. The capital embarked collectively is 2,532,406l.; and the market value being 3,776,432l., after allowing for a depreciation which 58 companies show, amounting to 740,797l., it follows that the aggregate increase is 1,144,026l., or equal to 45 per cent. on the capital embarked. In a former article, we drew attention to the fact, that those who had advanced their money to carry on mining works in foreign countries, to the detriment of British interests, were generally total losers, and urged the impropriety, in a national, as well as in an individual, point of view, of such proceeding; but we certainly were not prepared to find that the success which had attended, in the aggregate, home undertakings, for the procurement of the same articles of commerce, had been so signal as is now demonstrated; or that the confusion of the general opinion, with reference to mining adventures, was so complete. We are glad to find the reality to be as represented, for it is another, and very convincing proof that, where British capital is embarked in home enterprise, under proper and economical management, the result is generally beneficial, in some instances to an extraordinary degree, to those concerned. It is only a national spirit, which ought to be carried out in every instance of trade and commerce. There is not one article necessary for the purposes of this empire which cannot be supplied from within our own shores; and, consequently, it is a just reward to those who suffer in endeavouring to impoverish their own country, and check native exertions by the encouragement of foreign labour.”

The unexpected and lamented decease, a short time since, of the MARQUIS OF BUTE, will have transferred the holding of very extensive and valuable estates in the principality of Wales, to new hands, under trust for the surviving Marquis, who is, we believe, a very young minor. We are far from intending to insinuate that the late Marquis was not, in the largest sense of the words, a kind and considerate landlord; but the circumstance, that his great property will be administered by trustees for some time to come, and that the responsibilities resting on the entailed parts of the estate, are known to be lighter than often happens on the transmission of lands and real property to heirs-at-law, we do not utter an unreasonable desire, when we say, that with others we should hope, in respect of new leases, which in many cases will be necessary under the new trust, that the terms may partake of every possible degree of liberality, on the part of the lessor. It is not a time in which the great heritors, the territorial lords, should be found driving hard bargains, with those who are disposed, under covenant, to devote their capital and their skilled labour, to enhance the fruitfulness and the value of their estates. In particular, we hope it will be in the power of the trustees, to find a *mezzio termini*, by which the great Dowlais estate may be re-conveyed to the old lessees, and that great property kept open and active, to the comfort and profit of thousands, who are vitally interested in its continuation and success.

It is with much gratification we refer to a report, which appears in another column, of the proceedings at a meeting of the METAL TRADERS' PENSION SOCIETY. The establishment of institutions of this nature, as connected with the various professions, or trades, amongst which we are proud in referring to that of the Printers' Pension Society, is, we may say, becoming universal. The present, however, is one of late date, it being only in its fifth year; and, although under the sanction and patronage of several highly-influential and respected parties connected with the iron trade, has not met with that full support which it so well deserves. When we consider the importance to be attached to the iron trade alone—the hundreds of thousands of persons employed—the millions of capital embarked—we confess it appears to us “passing strange,” that the society should not be in a position to boast of the support and patronage of all connected with our metallurgical interests. It is true, that the subscriptions for the past year have exceeded that of the two previous years; but such is rather attributable to the exertions of one or two gentlemen, than to the willingness displayed on the part of the trade, to render aid to those who, in their old age, may require it, or to those widows, who, having lost their support, are in need. The report presented at the meeting—of which we have only space for an abstract—will, we feel assured, be read with interest; and as the anniversary dinner comes off on the 26th inst., at the London Tavern, when the LORD MAYOR will preside, we trust it is necessary to advert thereto, satisfied that the institution only requires to be known, to secure the aid of all associated with the trade and manufacture of metals.

THE COST-BOOK SYSTEM.

The following resolutions, which we copy from a cost-book now before us, will be found to embrace the principal points to which reference is made in another column:—

This mine is hereby declared to be divided into equal parts, or shares, and held respectively by the several parties whose names are subscribed hereto.

The system of management, and mode of carrying on the operations of the mine, and all matters attendant thereon, shall be enforced and carried out under the system generally known as the Cost-book System, and referred to in the Act Victoria 7 and 8, cap. 110, clause 63, subject to the following, and any other special minute, or regulation, that may hereafter be made for the internal government of the affairs of the mine, not inconsistent with the general management under the Cost-book System.

1. That the accounts be made up monthly, and be discharged by the purser, or agent employed for that purpose, who shall enter, or cause to be entered, the monthly cost-sheet, in a book to be kept for that purpose, to be denominated the “cost-book,” which this book is understood to be.

2. That a meeting of the adventurers shall be held at the mine, or at some convenient place, to be appointed from time to time, at least once in every two months, when the accounts of the preceding two months, with the balance, and all matters appertaining to the financial affairs of the company, shall be submitted, and minutes of the same entered into the cost-book, and signed by the respective adventurers present. That a list of shareholders, or adventurers, shall also be prepared, and entered in the cost-book, at such several meetings, and a statement submitted of the arrears, if any, of calls previously made.

3. That at all such meetings, upon the inspection and approval of the accounts and vouchers, the adventurers present shall have full power to make any call, or calls, which may be necessary for the prosecution of the mine, so that the amount so called does not exceed the sum estimated for the cost of the succeeding two months, in addition to paying off any engagements, or liabilities, which may at the time exist, and may declare a dividend, or division, of any surplus, which may arise from working the mine.

4. That at all such meetings, the adventurers present shall have full power to appoint or remove, any agent, or agents, and to determine the rate of payment for services rendered.

5. That all meetings shall be called by circular, addressed, by post, to the several shareholders, or adventurers, giving, at least, seven days' notice of the intended meeting; and that the same be signed by the purser, or his representative, or such party as the adventurers shall from time to time appoint.

6. That the meetings so held, the adventurers shall, if they think fit, appoint from time to time a committee of the adventurers, to superintend the management of the affairs of the mine, and to communicate with the purser, captain, or other agent, on the subject thereof; but the powers of such committee shall not extend beyond the period of two months, although the members of such committee will be eligible to be re-elected, or may be removed, and other persons appointed in their room.

7. That any meeting may adjourn from time to time, as may be deemed expedient; but that it be imperative on the purser, or other agent, duly appointed, to convene a meeting, at least once in every two months.

8. That at all meetings such adventurers shall have one vote in respect of every single share held by him; and in respect of which all calls then due shall have been paid up; and that a majority of votes of those present in person, or by proxy, be binding on the adventurers, whether present or absent.

9. That absent adventurers be entitled to vote by proxy—they depositing their powers to a co-adventurer; but that it shall be understood the proxy be confined to the specific meeting named, unless otherwise directly expressed.

10. That all transfers, or assignments, of shares be entered in the cost-book, and signed by the respective parties; but, in case of a transfer made by a separate paper, or instructions given to the purser, or other agent, by letter, such letter must bear the post-mark on the sheet authorizing the transfer, and not be enclosed in an envelope—and the original transfer shall be deposited with the purser, or other agent, and be by him entered in the cost-book.

11. That the captain, or resident agent, make a report on the operations at the mine, at least once a fortnight, or more frequently, if deemed desirable, and that such report be open at all times to the inspection of the adventurers, on application to the purser, or other appointed agent.

12. That a purser be appointed, into whose hands the moneys collected by calls on shares, and arising from sales of ores, and otherwise, shall be paid.

13. That a copy of the resolutions and abstract of accounts shall be transmitted to every adventurer, within seven days after the date which may arise from working the mine.

14. That if any call remain unpaid for the space of 14 days after the time fixed for the payment of the same, the share in respect whereof it is due may, at any subsequent meeting of the adventurers, be declared to be forfeited absolutely—such meeting having been convened by circular, stating the object of such meeting.

15. That any adventurer shall be at liberty to withdraw from the undertaking, on giving notice to the purser of such intention, and paying up his proportion of costs and liabilities; and, further, that he be entitled to his like proportion of ores, machinery, cash in hand, &c., up to the period of such surrender of his interest in the mine.

16. That the purser shall, when required by adventurers holding 50 shares in the undertaking, convene a special general meeting, for such purposes as may be stated in the requisition—the same being mentioned in the notice calling the meeting, and due notice given accordingly.

IRON, HARDWARE, AND METAL TRADES' PENSION SOCIETY.

The annual general meeting of this institution was held at the London Tavern, on Wednesday, the 22d instant.

H. L. TAYLOR, Esq., in the chair.

The minutes of the preceding meeting, and the usual formalities, having been carried out, the Hon. SECRETARY (Mr. Hawkins) read the report and accounts. The report presented to the meeting entered at length into the objects of the institution, its steady progress, and the increasing interest manifested in its success. The following brief epitome will best convey the sentiments expressed. After advertising to the modified change which had taken place in the constitution of the society, "by which the circle of its benevolence was greatly enlarged," the committee congratulate the subscribers on the benefits arising from such alteration, and the increasing subscriptions, thereby affording the most conclusive evidence of the estimation in which the society is held by the trade; while the committee observe, "that there is now good ground for hoping that it will, ere long, attain that place among our charitable institutions, which it should have attained before this time, and which the influential character of the trades by which it is supported may rightfully demand for it." From the financial report, it appears that the receipts for the past year had exceeded any two of the most prosperous years which had preceded it; the receipts for the several years, since the formation of the institution, having been—1842, 846l. 10s.; 1843, 412l. 8s.; 1844, 592l. 6s.; 1845, 408l. 6s.; 1846, 824l. 9s.; 1847, 1016l. 11s. 6d.

The report refers with pleasure to the increased exertions and assistance afforded by many of the original subscribers, who had kindly increased their subscriptions; amongst whom, although not personally alluded to in the report, may be included Mr. Gould, whose exertions have produced no less than 140l. during the past 12 months—while those obtained by another member of the committee exceed 40l.—thus, together, making more than one-half the amount received, whether by subscriptions, or donations, in the preceding year. The funded property of the society has been increased within the last year, by the purchase of 1500l. stock, in addition to 1500l. before held. The pensioners, during the past year, were only four in number, to whom 40l. 19s. had been paid; but the number was at the late election, in November last, increased to nine; and the amount payable will thus be increased—the grants for the present year being assumed at 140l., which is irrespective of what may be required by the additional number of pensioners to be elected in May next.

The committee, in thus advertising to the increase of expenditure, congratulated the subscribers on the pleasing prospects which their financial position placed them in, as affording them the means of carrying out more fully the objects for which the institution was formed—and express their earnest hope and desire that, at the forthcoming festival, which we understood to be fixed for the 26th inst. (when the Lord Mayor will preside), there will be that expression of feeling evinced, which will at once prove the interest taken by the trade in the interests of the society, and the care which the "master" should ever take, and here so pleasingly manifested, as regards the "man." With such aid as the committee contemplate, it is their intention to have two elections annually, and which, we trust, will be with a continued increase of the number of pensioners. The report refers to the valuable services of the officers of the society—all of which are tendered gratuitously, and thus augment the sum applicable to its objects. The report, which is ably drawn, closes with an appeal—if such it may be termed—to "the ladies," who, it would appear, have done "some service to the State," by the suggestion, that it would not only be gratifying, but would do themselves and the society much honour, and at all times be a proud and pleasing reflection, if that, by their persuasive eloquence and example, they would take upon themselves the establishment of a fund, with the view of erecting almshouses. It is hardly necessary to say, that an example thus set by the ladies, would be at once responded to by the other sex; and while no attempt would be made to vie with them in their praiseworthy endeavours, yet we feel assured that the ready reply to the call on the part of those near and dear to them, would at once prove the powerful influence which they possess.

The following is an abstract of the account submitted for the past year:—

Statement of Receipts and Expenditure.	
By balance from last account.....	£1833 7 2
Receipts and donations.....	£298 13 6
First annual subscription.....	214 4 0
Renewal of subscriptions.....	203 14 0
Dividends on stock invested, 60l. 8s. 9d.; accounts unpaid, 5l. 10s. 6d.....	65 19 3
Total.....	£2915 17 11
Printing reports, &c., 65l. 7s. 6d.; account-books, stationery, &c. 12l. 17s. 9d.....	£78 6 3
Advertisements, 27l. 19s. 6d.; postage, 17l. 9s. 5d.....	45 8 11
Hire of rooms and incidental expenses.....	39 10 6
Payments to pensioners.....	40 19 0
Balance.....	2711 14 3
Total.....	£2915 17 11

The statement of assets showed—stock in Consols and Reduced 3 per Cents. 2371l. 5s. 3d.; and in bankers' hands, 140l. 9s.—in all, 2711l. 14s. 3d.

The CHAIRMAN entered, at some length, on the advantages held out by the institution, and the claims it had to support. He felt that the kind aid and services rendered by gentlemen, who had been the early promoters of the society, were such that, while they must be self-congratulatory to themselves, in the consciousness of the good they had been the means of rendering to others, were, in like manner, acknowledged by all who took an interest in the objects to which their attention was directed. He could not do otherwise than return his thanks, on the part of the society, to Mr. Gould, for the kind and zealous endeavours, attended, as they were, by the most successful results, in advancing the objects in view.

Mr. GOULD, in the course of the proceedings, returned thanks for the compliments paid him; at the same time stating, that he had not yet performed one-half the duty he had imposed upon himself, whilst its performance was to him a source of pleasure. He hoped, in the forthcoming year, to be enabled to make an equally favourable report; and would beg to impress on every subscriber, that it was equally in the power of others, as with himself, to promote the interests of the institution. He had put his shoulder to the wheel, and, happily, the exercise of the slight power he possessed, had been attended with beneficial results. Let them remember, they numbered between 400 and 500 subscribers, or supporters of the society. If that each would manifest an interest, and bring in, were it only one or two additional subscribers, the means would be afforded to the committee, whereby they might afford additional aid to the distressed.

Several resolutions were subsequently passed, and some trite, but excellent observations, made by several of the members present. Among the recommendations made, and which were adopted—was altering the rules of the society—was one determining the minimum allowance at 20 guineas per annum, and the maximum, 25 guineas, being equally applicable to male and female pensioners. The usual vote of thanks to the honorary officers, and to the chairman, having been passed, the meeting adjourned.

NON-LIABILITY OF SECRETARIES TO PUBLIC COMPANIES.—In the City Small Debts Court, on Wednesday last, an action was brought by a poor woman, named Jenkins, against Mr. Allen, the secretary of the Bolivar Mining Company, to recover a balance of 13l. 8s., on account of wages due to her deceased husband, David Jenkins. It appeared, that the latter had been in the service of the company at Venezuela, for a length of time, and died at sea, on a voyage to England, in 1842; the plaintiff held a power of attorney, and continually received money up to that period; but none of the balance due until May last, when defendant paid her 15l. on account, and admitted that the full amount was 34l. 3s.—thus leaving a further balance of 19l. 3s. The defendant said, he was not now secretary of the company; and even if he had been, he was not liable. The learned Judge (E. Bullock, Esq.) said, that something beyond the defendant being secretary must be shown to render him liable; it must be shown, that he was a shareholder, or otherwise connected with the company. Mr. Duncan, for defendant, said, the plaintiff appeared the only responsible party in England, and, at all events, he was secretary when he paid the 15l.—he was, perhaps, secretary, trustee, and company, in his own person. The learned judge said, the case had not been made out, and he was sorry that the plaintiff must be non-suited. Mr. Duncan hoped the judge would remit the costs—the plaintiff, an old woman, was in such a state of penury, as to be totally unable to pay. The judge said, he had already gone out of the usual way, by granting the summons free, and plaintiff must be non-suited. Mr. Duncan, and Mr. Buchanan, solicitor of Basinghall-street, had taken up the case gratuitously, out of compassion to plaintiff.

THE NAVIGATION LAWS.—In order to testify their approbation of the conduct of Mr. James Mather in respect of the Navigation Laws, the shipowners of North and South Shields invited that gentleman to a public dinner on Monday last, at the Golden Lion Hotel, in South Shields. Mr. Mather, it will be remembered, took an active part in arranging the late procession of seamen on the Thames to Westminster, to present a memorial to Government in support of the Navigation Laws, and was the principal organ of the seamen in giving expression to their sentiments at the interview with Sir George Grey. About 100 shipowners and others interested in maritime affairs, comprising individuals of different opinions on matters of general policy, sat down to dinner, the chair being filled by Mr. Robert Anderson, and the vice-chairs by Mr. Clay, Mr. R. H. Bell, and Mr. Robinson. Mr. Richmond and Mr. Ingham were amongst the company. The speeches were of a complimentary character, but the general tone and feeling of the meeting was, of course, strong in favour of protecting the British mercantile marine.

COMMIST MINERS.—In consequence of the depressed state of mining, and the general poverty of the county of Cornwall, numerous miners are emigrating to foreign parts; and this, notwithstanding the towns and parishes have refused to vote an emigration fund, to be applied under the direction of the Poor-Law Commissioners.

EXPERIMENTS ON COAL—OFFICIAL REPORT.—No. IV.

PARK END COALS, LUDNEY.—This coal is known as the Park End High Delf or Lowry Vein, and is obtained at Park End, near Ludney, in the Forest of Dean. The vein is generally regular, and about 3 ft. thick, and is worked long ways, as in the thin veins of the Staffordshire coal-field. The overlying and subjacent strata are of the usual kind of shale. The dip varies from 6 in. to 2 ft. in 1 yard, or from 1 in 6 to 2 in 3. The coal is described to be of a free burning character of great strength and durability. The distance from the shipping port, Ludney, is 18 miles. The current price in summer is 10s. per ton, in winter 11s., free on board; and the principal markets are in Ireland, Cornwall, Cheltenham, and the manufacturing districts of Gloucestershire and Bridgewater. The coal forwarded for investigation had a very hard and compact structure, with a clean and bright fracture, and contained iron pyrites in very large quantities in every joint, even when broken down into the smallest sized pieces. It also contained to a considerable extent the white substance found in many of the other samples of coals sent to us. The bedding was very regular and well defined, along the planes of which the coal readily separated. The joints appeared to be at right angles to the plane of deposition, where we usually found thin layers of a brown, soft, and silky substance, similar to that seen in other samples. We remarked during the trials that the coal kindled easily, but that it made a very dirty smoky fire, which, at the ordinary working draught, caused immense volumes of dense smoke to appear at the chimney top. When the draught was increased the fire became clearer, but then the rush of smoke swept the loose soot from the fire and chimney, and carried it out in large flakes from the chimney top. If the draught was lessened, the fire would hardly burn, and on opening the doors the whole place was instantly filled with the loose ashes and smoke forced out from the fire. The cinders, ashes, and clinker were of a light weight and clean; the clinker contained much scoria, some of it quite vitrified. A palatable smell of sulphuretted hydrogen was perceived when the opening of the fire-doors caused the smoke to be driven into the boiler-house.

PENTREPOTH COAL.—This coal is generally called the 4-ft. of Church Pit Vein, and is situated near Morriston, in the parish of Llangavelech. The vein runs about 4 ft. thick, but is very irregular, and is worked at a depth from the surface of about 66 ft. The underlying stratum is soft clay, with hard clay over the beds. The dip is 6 in. in 1 yard, or 1 in 6, with a northerly direction. The coal is called free burning, and the current price at the copper-works in Swansea, where alone it appears to be used, is about 44s. per 11 tons, or 4s. per ton. The distance of the colliery from the port is 31 miles. The sample of this coal sent appeared to have been badly packed, as the coal, being soft, was broken up into very small pieces. It appeared to be of a bright fibrous structure, but not so distinctly so as many other sorts sent up to us for investigation: the peculiar cone-shaped form being, however, well defined. The coal was of a very soft character, containing thin laminae of a very bright coal, somewhat firmer in structure. In the bedding a dark-brown soft substance was found, but otherwise the body of the coal was very clean, and free both from pyrites and the white substance so frequently met with. Our remarks during the trials are, that the Pentrepoth coal burnt with great difficulty, unless a deep fire is kept up, and the charge continually thrown on the top of the fire in very small quantities at a time. Little or no smoke was given off, and a very high local temperature was produced by the combustion of the large quantity of coal on the fire-bars. The same scintillations were seen throughout the trials, as with the Pontrefelin coal, and also the same hissing noise while burning. More wood was necessary to light up with than usual. The ashes, cinders, and soot, were also in large proportions, though much of the latter was blown away while taking out the fuel.

CWMFROD HOCK VEIN.—This coal is obtained at Cwmfrodd, near to the works of the Vaux Iron Company. The vein runs from 5 to 6 ft. in thickness, is very regular, and is worked in stalls and pillars at a depth of 270 ft. to 300 ft. from the surface. The strata on which it lies are elench coal, ironstone, clay-coal, fire-clay, and rock; the dip being about 3 in. in 1 yard, and in a westerly direction. The colliery is about 15 miles from Newport, the port at which it is shipped. The principal markets are, the Brazils, East and West Indies, Africa, and the Government contracts, in which it was admitted about four years ago. The price current is 9s. 6d. per ton. The general appearance of this coal was dull, with iridescent plates of iron pyrites and opaque white plates on its surface, the position of the bedding, a dull brown matter of a soft pulverulent character, containing small white particles, was seen in some quantity. The coal was of a much harder structure than most others that we have had from the South Wales basin, and had a very irregular fracture, though with a great tendency to separate into small rectangular masses. It appeared to be made up of layers of shaly matter, alternating with thin layers of bright coal, and split up easily, though irregularly, along the planes of deposition. Large quantities, both of pyrites and white substance, were found disseminated through the entire mass, showing themselves chiefly in the joints. Our remarks during the experiments were, namely, that the fire appeared dirty and smoky, and that at times large quantities of smoke were seen from the chimney, and that a large proportion of soot was obtained from the fuel of a very dark colour, and very light weight.

ANTHRACITE.—This coal is obtained in the parish of Llangueike, in the county of Glamorgan, and is known by the name of the Brass Vein of the Cwmlyfelli Colliery. It is worked at a depth of 315 ft. from the surface, the galleries extending for some distance to the crop of the vein, the stalls most to the rise being about 225 ft. from the surface. It is called a 4-ft. vein, and is about 3 ft. 10 in. in thickness, and very regular. The dip in general is from 5 in. to 6 in. in 1 yard, and in a southerly direction; however, there are several pans and saddles which at intervals change the inclination and direction. There is also an extensive fault running nearly north and south. The overlying strata consist of a blue argillaceous shale, interspersed with other veins of coal, and several veins of ironstone and fire-clay. The coal is rather hard, and it is chiefly used in the hop and malt districts of England; the small coal is used also for lime-burning. The colliery is about 16 miles from the port of Swansea, where the current price is 12s. to 13s. per ton for the large, and 5s. to 6s. per ton for the small. There appear to be several other veins of anthracite coal in the neighbourhood. This vein is liked best for the malt and hop kilns, though a 6-ft. vein, called the Big Vein, and a 3-ft. vein, called the Little Vein, are most preferred for iron-smelting. This Brass Vein takes its name from a vein of pyrites, 3 to 4 in. thick, which runs through it; the coal in its immediate vicinity is considered by the colliers to be brighter, harder, and purer than any other portion of the vein. This anthracite coal has a bright appearance, with a shining irregular fracture, the bedding is tolerably well defined, with layers of a soft brown substance, at a considerable distance from each other. It breaks with a semi-vitreous fracture into irregular very brittle masses. Although the structure of the coal is hard, still, from its brittle character, it is without difficulty broken up into small pieces. We remarked on the first day's trial, that it was very great difficulty that we got the coal sufficiently kindled to get the steam up, nearly three hours intervening between the time of lighting up and that of getting up the steam; we, therefore, found it necessary on the following day to increase our quantity of wood, and also to use a given weight of another description of coal, in order to obtain that temperature which the anthracite appears to require before it will enter into combustion. When once that takes place, the heat given off is intense, and the fire is very readily sustained. It is very advisable to supply the coal in small pieces, about the size of an egg, and gradually to raise their temperature by taking it from the fire, and to take it to the fire; by such means we materially prevent that splitting into small pieces, which the sudden application of a great heat is sure to occasion in all coal of the same structural composition as the anthracites. The quantities of cinders and ashes were larger than with many other coals; they were of very small size, and both contained, when broken up and examined, varying proportions of pure and unaltered coal surrounded by the burnt mass. The clinker was very small in quantity, and in very small and very hard pieces. The fire kept burning for an unusually long time after the firing had ceased, as seen by the working sheet for the first day's trial, we left the furnace at 5.45, and the steam, however, was blowing off up to 10 P.M., and the fire remained in up to 10.15, 45 m.

CWM NANTY-GROS.—The sample of coal sent up for the trials was of a softish character, the bedding, shaly matter, varying in thickness, and of great hardness, with irregular plates of a brownish-black substance of a soft and silky appearance. The general structure of the coal was very irregular, and large quantities of pyrites of a light colour were perceptible throughout the mass, together with a smaller quantity of a white substance, like that met with in several of the other coals, but not in such large and flat plates. The coal broke up easily into small pieces; it kindled readily, and seemed to coke well upon the dead plate, making rather a smoky fire; which, however, by careful stoking and regulation of draught, did not appear at the chimney top as smoke. No other remarks were made during the experiments.

WYLLAM'S PATENT FUEL.—It is made and sold in blocks, weighing about 12 lbs. each, of an oblong rectangular shape, being 10 in. by 6 in. by 6 in. The charge-box, used for taking the blocks out of the furnace, was of a size adapted for these blocks, 20 in. by 24 in., and built them up so as to form a parallelopiped 24 in. by 20 in. by 18 in., and then found it to weigh 329 lbs., which gives 329 ÷ 568 = 58 lbs. per cubic ft. The blocks, when broken, show an irregular fracture, and appear to be composed of small pieces of coal forcibly compressed and cemented together by some bituminous substance, giving off a strong odour of mineral pitch when heat is applied to them. Our remarks during the trials show, that the fire was readily kindled, and steam quickly got up, but much smoke arose from the fire, and the draught was not so good as it was in the case of the other coals. The fuel, when broken up, showed a very hard and compact structure, and was very difficult to break up. The fuel, when broken up, showed a very hard and compact structure, and was very difficult to break up. The fuel, when broken up, showed a very hard and compact structure, and was very difficult to break up.

WARLICK'S PATENT FUEL.—The blocks, which have the following dimensions—10 in. by 6 in. by 6 in., which would give 252 in. in the cubic content, and would weigh 329 lbs., were found to weigh 329 lbs., which gives 329 ÷ 568 = 58 lbs. per cubic ft. The blocks, when broken, show an irregular fracture, and appear to be composed of small pieces of coal forcibly compressed and cemented together by some bituminous substance, giving off a strong odour of mineral pitch when heat is applied to them. Our remarks during the trials show, that the fire was readily kindled, and steam quickly got up, but much smoke arose from the fire, and the draught was not so good as it was in the case of the other coals. The fuel, when broken up, showed a very hard and compact structure, and was very difficult to break up. The fuel, when broken up, showed a very hard and compact structure, and was very difficult to break up. The fuel, when broken up, showed a very hard and compact structure, and was very difficult to break up.

BELL'S FUEL.—This fuel is manufactured at Port Talbot, near Talbach, Wales, and is formed into blocks, having the following dimensions—9 in. by 6 in. by 5 in., which would give 270 cubic in., or 0.6 cubic ft., as the contents of each brick. The economic weight of a cubic ft., as deduced from the measurement of the pile, having the following dimensions—24 in. by 21 in. by 18 in., was found to be 65.3 lb. In appearance this fuel resembled the specimen sent up for trial by Wyllam and Co., except that the bricks were smaller, and, perhaps, rather more irregular in their texture, some having a compact resinous structure, whilst others easily crumbled under the blow of a hammer. It was observed that this fuel produced considerable quantities of dense black smoke on lighting the fire, which ceased to be evolved as the experiments progressed. This fuel was found highly bituminous, and to soften slightly even at the temperature of 212° Fahr., while at high temperatures it melted readily, and fluxions were frequently observed to run through the fire-bars during the experiments. At the termination of the experiments considerable quantities of ash and clinker remained; and during their progress, the fire required very great attention and frequent stoking, in order to prevent the choking of the grate from the swelling and melting of the fuel.

GRANGEMOUTH COALS.—This coal is called the main coal, or Carronhall split, and is mined in the parish of Bothkennar, half a mile from Grangemouth. It is worked long-wall, at a depth of 270 ft. from the surface, and varies from 3 ft. to 3 ft. 4 in. in thickness. The dip of the bedding is from 1 in 10 to 1 in 12, and the subjacent and overlying strata are composed of shale, talke, or laminated sandstone, coal, fire-clay, and sandstone. The character given of the coal is, "that it is composed chiefly of splint, with a portion of cherry or cubical coal on the top; that it burns with an intense heat without caking; that it is free from sulphur, and leaves a light-coloured ash." The distance from the port, Grangemouth, is half a mile, and the current price is 5s. per ton. The principal markets are the Baltic and France for steam purposes, and the neighbouring districts for iron-smelting, &c. The sample of coal sent up was from the main coal, south working of the Grangemouth Colliery; it is a coal of a dull appearance, and so hard as to require a sledge-hammer to break it up, but splits readily in the direction of the bedding. Across that line the fracture is very irregular; it contains large quantities of a

very hard shaly matter, varying in thickness up to 3 and 4 in., and sometimes intermixed with thin laminae of bright black coal; the shaly matter burns and leaves a dense whitish residuum. The coal in appearance shows little pyrites, but numerous plates of a white substance, of a greater thickness than has been observed in any other coals; it always contains a considerable quantity of the soft friable substance, which gives such a curious alkali-like play to reflected light. Our remarks during the trials would show that it lights up readily, and, although it makes a smoky fire, still but little smoke was seen escaping from the chimney, save when the draught was altered at the time of firing. The pure coal walls and breaks up well on the fire, but the shaly matter splits and dies on the application of heat. On the first day of the trials, towards the latter part of the day, on the ash-pit being opened, a large quantity of flame and smoke was forced down through the fire-bars, escaping out of the ash-pit door into the boiler-house; this occurred twice the same day, but not on either of the subsequent days. The ashes were very small, like dust, and of a whitish colour, the cinders and clinker were also of the same colour.

[To be continued in next week's Mining Journal.]

Original Correspondence.

SIMS'S IMPROVEMENTS IN THE STEAM-ENGINE.

SIR,—Seeing you have inserted some extracts from the specification of my newly-invented steam-engine, in your last Journal, as they appeared in the *Mechanics' Magazine*, I would beg to offer some few remarks, confirming myself to that part of my invention best adapted for pumping only, and reserve some further explanation of the rotatory engine for some future time. It having been frequently mentioned to me, by many of our mining speculators, how desirable it would be to have some cheap, simple, and portable steam-engine, for the purpose of making trial of lodes, at some few fathoms deep, in order to show whether or not they would warrant any considerable outlay, I would beg to recommend this invention, as being by far the best, for that purpose, of any other plan hitherto invented, as it combines the greatest simplicity, portability, and economy—the expansion principle of working steam is carried out to a greater extent than in any other single cylinder engine, and without the least injury to the pitwork, or any other thing. The building required, exclusive of boiler-work, is little more than is required for a common balance-bob or beam, except a little shed for the engine-man; and to the spare end of the beam may be attached any balance that may be required, of course dispensing entirely with a balance-bob. The double pump, or hydraulic, attached, as shown in the engraving, serves to guide the stroke of the engine, fast or slow, as may be required, after the weights are shifted. It also serves as a cataract to regulate the number of strokes of the engine, and as a feed-pump for the boilers.

It will be observed, this engine works on the oscillating principle, and may be used as high-pressure, or with condensing works. The weight-boxes would, of course, be loaded as the load of the engine may require; and, in order to save bulk, I would load them with lead. The most important feature in this engine is the carrying out the expansion principle, without injury to the pump-rods, clacks, or, in fact, any other thing, as the stroke of piston is made independent of these things, consequently they receive no concussion. Clacks and buckets will last very much longer; little or no risk of breaking pumps, or any other thing; and, therefore, all the pitwork would be equally safe at one-third less strength, and, of course, at one-third less cost.—JAMES SIMS: Redruth, March 28.

IMPROVEMENTS IN MINING MACHINERY.

SIR,—I would beg to inform Mr. Davies, of the Talargoch Mines, that I have not made a trial of the pumps with water-pressure, to supersede the use of flat or horizontal rods; but I consider the thing is so exceedingly simple, and is so nearly allied to the hydraulic, or water-pressure, engine, that there can be no doubt of its doing well. JAMES SIMS: Redruth, March 28.

ECONOMY OF SMALL STEAM-ENGINES.

SIR,—On visiting a turner's shop the other day, I was pleased to observe, that the wheel and leather belt were turned by a steam-engine, consisting of a small furnace and cylinder, comprised within a very minute space. It would, perhaps, be well if the boilers of mine engines could be brought a little nearer to their work, and thus prevent a loss of power by the radiation of heat.—A MINER: Penzance, March 28.

CROSSE'S MITE.

SIR,—I have been an experimental electrician for a period of more than 30 years, and it is just 32 years since my first public communication on the subject appeared in a scientific journal. As I cannot submit to be cathechised by Mr. Baggs (I presume my junior), and, moreover, as I acknowledge no "father confessor" in science, I must waive all further comment or reply. I have never questioned, for a moment, Mr. Crosse's exposition of a thunder-cloud, nor doubted the validity of his claim as a sound electrician, save in the matter of insect production. Here, indeed, Sir, I am free to avow, that I shudder instinctively at the bare idea of *atheim*; and I glory, too, in an honest repudiation of that "science" (falsely so called) that can dispense with a CREATOR, and proclaim its *eureka* independent of a God. What sound logician can doubt, for a moment, that any organism whatever, animated by the throes of life, can emanate from the fortuitous concurrence of atoms?—otherwise, on what principle is *Laetetus* chargeable—as he is, by common consent—with unredeemed *atheim*; and that man is a *cretin*, or a fool, who cannot see the same dark and dismal doctrine in "equivocal production," or "spontaneous generation." With all such sentiments I have no community of feeling.

Your correspondent must allow me to know more about Crosse's mite than he can pretend to. I called on Mr. Crosse, and saw the thing for myself; and the proper version of the whole affair, from beginning to end, I have recorded in my pamphlet, entitled, *Observations on the Vital Principle*, which has passed through three editions. Mr. Crosse is even indebted to me for giving this mite the very name it bears—*Acarus Crossei*. It is, however, a mistake, to say that this particular species of *acarus* has no other habitat than Mr. Crosse's water-battery; it has been found under the bark of a tree, and on the walls of the cellar; and Mr. Clarke, of Taunton, finds that it is developed, in 12 days, in a splinter of wood in soap and water! and Mr. Crosse has confessed it is the very same insect.

Did not Mr. Crosse, in his original account of it to his sister at Weymouth, explicitly say, that he was forming insects by the power of the galvanic battery?—and did not Mr. Newton, as well as Col. Macrone, hail the announcement in proof of "the production of life by electricity?" Now, Mr. Baggs should have known this, and much more, before he attempted a vindication of Mr. Crosse in this matter, and of which Mr. Crosse is, very naturally, so sensitive; and I dare to say, that this eminent electrician would have freely excused Mr. Baggs from intermeddling, or touching so tender a point. Finally, Mr. Baggs should have consulted the *Comptes Rendus* of the French Academy, and M. Turpin's statement, to whom Mr. Crosse had duly consigned one of his mites; it is in substance as follows:—"We know not what merit Mr. Crosse may possess as an entomologist, but if he concludes that he has found, by any fortuitous concurrence of atoms, a being of so complex a structure as an *acarus*, he much deceives himself; the specimen sent is only remarkable for being a *female*, and containing an egg, showing that the *acarus* propagates its kind, as do other *acar*." He then advises Mr. Crosse to try his skill on less complex organisms. J. MURRAY: Portland-place, Hull, March 28.

EXPERIMENTS ON COAL—ECONOMISING STEAM.

SIR,—You gave an article in your last week's *Mining Journal*, in which you call the attention of your readers to experiments made as to the kind of fuel which possess the greatest recommendation for steam-mary and marine purposes. In the same paper, are two long letters on the same subject, and in the *Daily News*, and other papers, I perceive the same subject is also being referred to.

With such inquiries abroad, I am led to ask—Is there verily, and, indeed, a desire for greater economy in the weight and bulk of coals required? Is it desired that half the freight in coal should be equal to the production of the same power, or that the same coal that is now necessary, for thirty days cruise, or steaming, should be equal to propel the same vessel, at the same speed, for sixty days?

If, Sir, such desiderata be really desired, then it can assuredly be effected, by economising the steam, in the manner, and upon the principles, I have long ago made manifest, and which I have for a long time endeavoured to press into the service of mankind. These principles defy impeachment, and are, by the various inventions I have made public, rendered much more safe, convenient, compact, economical, cleanly, and comfortable, than the present system. Yet, forsooth, I am denied all encouragement; and told, that the Lords Commissioners of the Admiralty are not disposed to

adopt my "suggestions." I beg, however, to assure the official engineers of the Admiralty, that they are not mere suggestions, but proved and established realities; and such realities, that if my countrymen are content to be misled by such officials, and will thus drive me to solicit the patronage of other nations, they shall find that I am no mere theorist; not one of those who, like them, with hundreds of thousands of capital, and all else they can desire for success, yet produce an endless succession of failures. I hesitate not to affirm—because I am enabled to do so, on the most certain of all human knowledge—viz., that derived from experiment—that the first engine so constructed will demonstrate to the full, all the advantages I have set forth, and will realise, in one item alone (that of coal), a saving of 50 per cent. I, Sir, speak thus confidently on this subject, because for ten years I have had ample opportunity of forming a correct opinion upon it. I have also endeavoured, in a truthful manner, and as far as my individual efforts would enable me, to advocate and introduce so beneficial a change against the phalanx of opposing elements which are ever found uniting to deprive mankind of such advantages, and to scourge inventors. Notorious though it be, that England's inventors and scientific men have been her greatest benefactors, yet she has thus allowed most of them to be scourged in an unrelenting manner. It is said, that inventors are enthusiastic men—they assuredly have reason to be so, to bear onward against the varied discouragements they have to encounter. But I assert, that it is not mere enthusiasm that bears real and useful inventors onward and upward, despite those discouragements—but the truth which is with them, and which their experiments demonstrate, in the long run, must prove more than a match for the spirit and obstacles that oppose them.

This is a time of revolutions; assuredly, in relation to inventors, such are demanded by all that is sacred and just. For what are the powers of mind required for successful invention, but those of clear discrimination, aided by luxuriance of imagination;—the latter, furnishing the mind with a chaos of elementary materials, from which the discriminating powers, directed by a clear knowledge of abstract principles and practical requirements, devise and constructs the means suited to effect the desired purpose; which, being experimentally tested, and found to be correct in all their bearings, become indestructible truths, which may be suppressed, but cannot be destroyed. Are such minds so common, or are such results so trivial, that in England they should be doomed to never-ending discouragements? Are such men for ever to be at the mercy of the pirate, the arrogant, the interested, and the envious? Is there to be no end to the injustice ever being practised, of postponing the application of their inventions till some more convenient season; when, too often, they are appropriated to the credit and advantage of others—aye, even those who denounce them, in connection with their originators, as something too visionary to deserve their serious attention. Thus have the rightful originators been despoiled, not only of a small moiety of the profit, but also of the honour which attaches to all discoveries which are good in themselves, and beneficial in their tendency.

England has permitted this disgraceful treatment towards her inventors to a greater extent than that of any other civilized nation; as France, America, and, above all, Belgium, exhibit a disposition to treat with fairness, those who open up sources of lasting good to the whole family of mankind. Perceiving there is an effort made by your correspondent, Mr. Campin, to call the attention of the legislature to the objectionable nature of our patent laws, this subject, and that introduced in the commencement of this letter, in reference to the steam law, are the immediate causes of my having trespassed thus far upon your valuable space.—T. CRADDOCK. Birmingham, March 28.

VENTILATION OF COLLIERIES.

Sir,—Having the other day, for the first time, glanced over the last report of Mr. Tremere, the Government Commissioner of Mines, and who has, during several years past, had an opportunity of examining all the best systems of ventilation, I was not a little surprised at seeing the plan of Mr. Gibbons, South Staffordshire, loudly applauded in the following terms:—"A gentleman, uniting considerable acquirements with long practical experience, and who has, for many years, applied himself to this, and other questions, bearing upon the welfare of those around him, has recently published a small work, in which he describes, in detail, the mode of ventilation, long since introduced, with complete success, into his collieries. Taking advantage of the natural tendency of the gas to ascend, Mr. Gibbons's plan is to open for it a passage, about 2 ft. square, along the upper stratum of coal, and up the side of the winding-shaft, and hence into a chimney (from 60 to 90 ft. high), which it enters at about 30 ft. above the furnace. The winding-shaft then acts as the downcast shaft for the stream of pure air, and the expense of a separate upcast shaft is saved, as the air channel, of 2 ft. square (or 3 ft. by 2 ft.), constructed by the side of the former, fully answers the purpose." "Mr. Gibbons thus establishes a system of ventilation, which is, under ordinary circumstances, self-acting; and an experience of 25 years has, in his opinion, fully proved its efficiency."

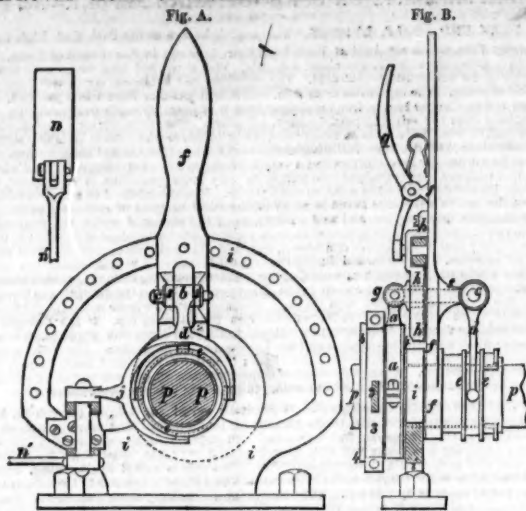
In what an age we live, when we see a high functionary of the Government, with years of experience upon his head, derived from the viewing of mines in every part of the kingdom, praising a system, which was shown, through the columns of your Journal, by Mr. H. Johnson, to be the very reverse of improved. Now, let us scrutinise its principle. Taking each working shaft to be 7 ft., the area is 38 ft. downcast, and the size of Mr. Gibbons's groove we will take to be 5 ft., being nearly $\frac{1}{8}$ th the former. Now, this is not simply the discharge of gas, but it is the whole capacity of the upcast—air and gas—and this, too, for the ventilation of a seam 30 ft. thick. Sir, the proposition is so absurd, that there is not a common collier, in this part of the country, who would not condemn a pit carried on by such unadvised principle. As to the chimney, why the tubes of this country are nearly 200 years old, the remnants of which may be seen and heard of in the very oldest collieries of the district. But, then, such a system, to receive the commendation of a Government Inspector—one who has written and published successive reports—is the most surprising, greatly, indeed, calculated to bear out the objections which are made against the principle of Parliamentary interference in the management of mines. I strongly advise some of your practical viewers to procure the report from Clowes, the Queen's printer, and favour us with a few comments.—CARBON: Durham, March 28.

IMPROVEMENT IN THE PROCESS OF TANNING.

Sir,—I beg to offer one or two observations, through the medium of your columns, in reply to your intelligent correspondent, Dr. Murray, whose letter, treating on leather, and more immediately referring to my patent, appeared in your Journal of the 25th March. Although my invention of puncturing the skin may have reminded Dr. Murray of his former suggestion of "impregnating the pelt with tannin," by means of a vacuum, yet I must be allowed to say, that there is a strong line of distinction to be drawn between the one and the other, which it will be my endeavour briefly to explain. The chemical combination between the tannin and gelatine does not take place immediately and completely, "on the principle by which quicksilver is forced into the pores of wood;" but, on the contrary, in order to be efficient and most favourable to the production of a superior article (of leather), proceeds gradually, and, I may add, somewhat slowly. The tannin does not merely fill up the interstices between the fibres, as mortar between bricks, or as quicksilver does the pores of wood, but it assimilates with them, forming a most perfect union, at the same time that each undergoes a partial change. The claim I set forward in my patent, which was noticed in your Journal of the 11th March, is that of exposing a much greater surface of fibre to the immediate action of the tanning, and thus facilitating the process, at the same time that I thereby gain weight and increased substance, attended with which is that of the saving of time—an important consideration in itself—the labour of handling, and economy of tanning material, while the quality of the leather is much improved—as evidence of which I beg to forward you herewith two specimens, one of which was tanned in the space of six weeks; the other, which is, of course, of an inferior quality, having been done in seven days, but which I do not recommend. It will be observed, that the puncturing is the main feature presented in my patent, whereby the saving of time is effected, and the quality of the leather improved. With respect to the best method of blowing the leather, I beg to observe, that this process is one which is rather resorted to as a means of practising a deception, by holding out false colours to the currier, and cannot be said to affect, in any way, the quality. When properly limed, pared, and tanned, no such clap-net, or mode of deception, is required, as the leather will, of its nature, and the consequent result of the process, have a good colour, and turn out to the currier what its appearance would seem to justify. I have to apologise for this intruding on your space, but shall be happy to satisfy your correspondent, or any other party who may wish for further information. S. SYDNEY.

Twelve-chambers, Fleet-street, March 29.

IMPROVED MODE OF WORKING EXPANSIVE STEAM VALVES.



Sir,—Fig. A is an end elevation; and fig. B a side elevation. In this design, one eccentric, which is shown at 4, 4, 4, is made to give motion to both the steam and expansive valves. The time at which it is desired to open and close the expansive valve, in relation to the stroke of the piston, will be understood from the following description of the parts:—*a a* is the clip and eccentric rod, which communicates motion from the eccentric, 4, 4, 4, to the expansive valve, *n*, through the right angular lever, *b* and *d*, which moves upon the pin, *c*, which is attached to the small projecting parts, *s s*, which project from the lever, *f f*—the lever, *d d*, terminating in a forked end, which takes into the groove of the circular ring, *e e*, which ring is moved longitudinally by the action of the eccentric through the aforesaid lever, *b* and *d*; *j* is another right angular lever, which communicates motion to the expansive valve, *n*, through the valve-rod, *n'*. The part represented at *i*, receives its support from the foundation, or other fixed part, to which the main shaft of the engine is attached, and has a projecting socket, on which the lever, *f*, and ring, *e*, work—so that these parts have no direct communication with the main shaft. The ring does not revolve, but only partakes of the longitudinal motion, imparted from the eccentric, and from thence through the levers, *b* and *n'*, to the expansive valve. The arc of the part marked *i*, supports the lever, *f*—it being also graduated, indicates the point at which the steam is cut off; as it will be seen that, by moving the lever, *f*, the whole of the parts, *a a*, *b*, *d*, *h*, and *s s*, are carried round with it to any desired angle in relation to the main crank of the engine, whereby the same thing is effected as if the eccentric, 4, 4, 4, itself were moved round, which governs the time of opening and closing the expansive valve. The part marked *h h*, is attached to the lever, *f*, and serves the purpose of steadying the eccentric clip, and also embraces the arc, *i*, so as to keep the lever, *f*, firmly attached thereto. At *g* is seen a small lever, acted upon by a spring, having at the opposite end a pin, which, on passing through the lever, *f*, and arc, *i*, holds the lever, *f*, firmly in the desired position; whereas, on pressing the smaller lever with the hand, the lever, *f*, is liberated and movable: 3, 3, is the eccentric clip, which is supposed to work the steam valve. Birmingham, March 23. THOMAS CRADDOCK.

DR. CLANNY'S NEW SAFETY-LAMP.

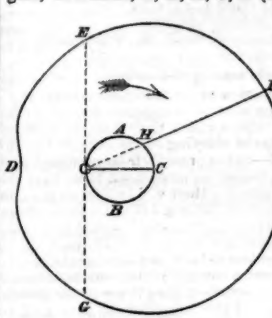
Sir,—I have much pleasure in transmitting to you, for the Mining Journal an engraved wooden block, illustrative of my last safety-lamp. In this safety-lamp wire gauze is discarded, for reasons which I will now proceed to give to your numerous readers. In this new safety-lamp I employ a copper cylinder, having numerous and very small perforations, through which the air needed for the support of combustion passes downwards to the flame of the oil lamp, as formerly explained in the pages of the Mining Journal, in respect to my penultimate safety-lamp. Within the centre of this copper cylinder, the used air passes directly upwards through a single top into the atmosphere, carrying with it the major part of the soot of the oil lamp. It is worthy of remark, that in this new safety-lamp the copper cylinder, even when the lamp has been used for a considerable time, is found to be, generally speaking, in a clean state, compared to that which obtains in the wire cylinder, under similar circumstances. I may also remark, that if fire-damp burns for any length of time in the Davy lamp, the precipitated soot, within the wire gauze, becomes ignited, and, in its rapid combustion, either bursts the cylinder, or burns the wire gauze, and, of course, an explosion will, under such circumstances, immediately occur. These facts are well known to all pitmen, who have been heretofore compelled to use the Davy lamp. Add to this, that the Davy lamp gives such an insignificant light, that the pitmen, between hope and despair, screw off the cylinder of wire gauze for several obvious reasons, preferring to risk their lives, rather than continue in such "darkness visible."

It will be in the remembrance of the readers of the Mining Journal, that I am now only returning to my plan, which I adopted in the construction of my steam safety-lamp, in which the atmospheric air passed spontaneously upwards, through a tube at the back of the lamp; then it passes through a volume of steam (which was extricated by the heat of the oil lamp) to the flame of the oil lamp. For this safety-lamp, I had the honour, at the hand of H.R.H. the late Duke of Sussex, as president of the Society of Arts, to receive the largest gold medal of the said society—A.D. 1817. This new safety-lamp has been most assiduously employed in the Monkwearmouth Colliery, in this vicinity, by consent of the proprietors, and under the immediate management of the talented viewer and underviewer. I am impressed, that perforated copper cylinders will be found to be also greatly superior to perforated plates of iron, or of plates of tinned iron. Besides, it is more pliant, durable, and cleanly than iron—it does not rust in a safety-lamp—is not, in a coal mine, rendered impervious to the needful supply of atmospheric air, free from rust, and is more workable, especially at the joinings, and is more readily cleansed by the safety-lamp brush. Some persons, who have not yet seen this new safety-lamp, either in or out of a coal mine, may object to the glass cylinder. I hereby beg leave distinctly to affirm, that as far as has come to my knowledge, such objections are groundless, as those viewers and pitmen, who have extensively employed my new safety-lamps in different coal mines, greatly infested with fire-damp, have testified to me of their own free will and accord. When the fire-damp burns in the copper cylinder of this safety-lamp, the glass is not more than ordinarily heated, when the safety-lamp is used in a pure atmosphere, even, as in some instances, when cold water fell upon the glass cylinder during the combustion of the fire-damp. This may be readily understood from my description above, as to the entrance of air for combustion, passing about $\frac{1}{2}$ in. through the lower portion of the perforated copper, which keeps the glass, under all circumstances, at a comparatively low temperature; nor does the fire-damp flame ever burn within the glass cylinder surrounding the oil lamp flame, as obtains in combustion. The glass cylinder is exceedingly thick, well annealed, and of the best description of white glass; besides, the ends of the glass cylinder are so well secured, that if a crack took place, from any unusual or untoward

circumstance, it remains *in situ*, and in a safe state in respect to the surrounding fire-damp, as was proved by an eminent viewer, a friend of mine. He kept my new safety-lamp burning for a considerable length of time in a coal mine under his charge; he then turned the safety-lamp upon its side, so that the flame of the oil lamp was continued, and, in the presence of several respectable persons, struck the glass cylinder violently and repeatedly with a thick stick; and it was only after giving several blows, he at last succeeded in making a simple fracture of the cylinder, and which was not pervious to air of any description. This "experimentum crucis" was of his own devising, and which he reported to me with great exultation. On another sheet of paper, in the present envelope, you have the gentleman's name, and that of the colliery, &c., which, of course, is confidential.—W. REID CLANNY: Sunderland, March 27.

ROTATORY STEAM-ENGINES.

Sir,—Having paid some attention to the theory of that description of rotatory steam-engines acting by the shifting of weights—one form of which was patented by Mr. Witty, of Hull, in 1810 (see *Repertory of Arts*, vol. 17, page 129)—and another by Mr. Sims, within the last few months—I am induced, by having seen the latter engine described in your Journal of the 25th inst., to offer you the following brief summary of the mathematical principles of their action:—1. The piston and piston-rod, and the weights with which they are loaded, act to produce rotatory motion as if their whole mass were collected at their common centre of gravity, which, in Mr. Sims's engine, is at the centre of the piston.—2. When an engine, in which the position of the valves is adjusted in the best manner, has attained a state of uniform motion, the centre of gravity of that sliding mass revolves twice for each complete revolution, or double stroke, of the engine, in a circle, O, A, H, C, B (see diagram), which passes through the axis, O, of the shaft, and at that point is tangent to a vertical line, E, O, G, and whose diameter, O, C, is one-half the length of the stroke.—3. The gross mechanical effect of this rotation is equivalent to that of the weight of the piston with its load, descending through a height equal to the circumference of the circle, O, A, H, C, B, once in each double stroke; therefore, if E represent the mechanical effect—*w*, the weight of the piston, with its load; *l*, the length of a single stroke; and *n*, the number of double strokes in a minute. $E = 1.5708 n w l$. In a well-constructed engine, the length and number of strokes—and, consequently, the expenditure of steam—will spontaneously adjust themselves, according to the duty to be done, until the above equation is satisfied; and this constitutes the chief advantage of the engine.—4. The average total effective pressure of steam on the piston, deducting the friction of the piston and rods, bears to the weight, *w*, the constant ratio of .7854 to 1, when a uniform velocity has been attained—that is to say, if *p* represent the net effective pressure of steam per square



inch, and *a* the area of the piston, $p = .7854 \frac{w}{a}$. Hence, by properly adjusting the load of the piston, the engine may be made to work under very variable duties at that pressure, which is found to answer the greatest economy of steam.—5. When the engine, however, is being started from a state of rest, the pressure, *p*, must, for a limited time, be equal to, or somewhat greater, than $\frac{w}{a}$.—6. If H I = E O = O G, represent the distance of one of the weight blocks from the common centre of gravity of the piston and its load, that block, when a uniform velocity has been obtained, will describe a curve of the epicycloidal kind, D, E, I, F, G, whose radius-vector, H, I, describes half a revolution round the point, H—while that point goes once round the circle, A, C, B, O. Hence, the guide plate mentioned by Mr. Sims ought not to be parabolic, but epicycloidal; otherwise, it will interfere with the uniformity of motion, especially when the duty is heavy.—7. The weight blocks ought to be fixed as near the common centre of gravity as is practicable, in order to diminish the strain arising from their centrifugal force.—8. The rotatory force exerted on the wheel varies according to a law analogous to that of the action of a crank and a fly-wheel, or something equivalent is, therefore, required to produce uniformity of motion. This irregularity of action is, of course, diminished by fixing two or more cylinders at suitable angles on the same shaft, as described in Mr. Sims's specification. GYRON.

London, March 29.

COLLIERY OPERATIONS—THE LONG-WORK SYSTEM.

Sir,—The description given by Mr. J. C. Sutcliffe, in your Journal of the 18th March, is a step in the right direction. He describes it as the Yorkshire long-work mode of colliery working, which consists of pillars of coal between each division of open workings, and in each of which there are two headings to air each other, by openings made between them laterally, which said openings are stopped up as the headings advance forward, and new ones are made. I wish he had given us a scale to his plan, or mentioned the breadth of his long work, so called. I should suppose, comparing the breadth of his large openings with the breadth of his headings, that they do not exceed 40 yards in breadth each. The mode of ventilation, set down in his plan, I have not a doubt will prove successful in a moderately infested colliery; but it has too many turnings and stoppings for desperate cases of fire-damp for coal-getting; and it also appears to me to be a very expensive method. Mr. Sutcliffe's coal-headings are very numerous—double heading at every 40 or 50 yards, and side holes from them into the wide work places, and into each other also; and the stoppings with bricks and mortar of these holes behind, as the work proceeds forward, must also tend to make the coal-getting expensive. I am myself under the necessity of driving double headings, and cross-cutting from one to the other, in new openings, until I can communicate with regular systematic ventilation; and here I beg to explain what happened in this colliery some short time since. The gas fired in one of those double headings, blowing the greater part of those double brick and mortar wall stoppings from between the headings, and forcing the bricks into the solid rib of coal, on the opposite side of the heading, where the fragments of bricks are now to be seen—a poor chance for colliers to escape from after-damp from inside workings, when the stoppings are blown away outside them; therefore, the fewer stoppings in fiery collieries the better.

The accompanying plan shows a mode of long work in active operation here—the scale is eight chains to an inch; and you will perceive it is extending in width, as the fault, 1, 1, and the level course horse-road, 2, 2, bear from each other; and, by the time the coal is worked to the extent of its range, the open face of the work, 3, will be 1500 yards in length, and no solid coal left in the whole piece between the old work, 4, and the fault, 1, 1. The horse-roads, 2, 2, and 5, 3, are carried through the waste, or gobbing; as the coal is worked forward, there are 4 ft. of fire-clay to get down in the horse-roads, to make height for the horses, which said fire-clay is put in to build up the horse-road sides with; no spoil of any kind is sent out—all is kept in to fill the room behind the coal-getting. The air comes into the work three-fourths of a mile through the horse-road, 2, to the paring of roads at 6; goes up that road to the face of the work, 3, down the face of the work, 3, 3, 3, and back along the horse-road to the pit, 7; down that pit 15 yards into mine work beneath, traversing that also, which is long work too—an open face of work without a single pillar, 900 yards in width—and returns along a horse-road, 500 yards to the bot-

tom of the upcast pit, which is a working pit, drawing coal; two powerful furnaces are connected with that pit, about 15 yards above the bottom of them. You will perceive there are no headings to be paid for in the above mode of long work, no stoppings to make, and all work is done in the air-way. The usual way of working the coal, at 4 4, was by stalls, about 10 yards wide, with 5 yards of pillar between each stall. That piece of coal could not be worked that way from the old work, 4 4, to the fault, 1 1. The gas was very powerful against the fault; and up at the extreme rise of the work, too, the gas would fire in the Davy lamps; and the coal was left there many years for that reason. Since the long-work system was adopted, the coal is worked very comfortably, without using the Davy lamp at all, with the exception of going round the work, the first thing in the morning, to examine its state, before the colliers begin. The piece of coal-getting now described has been one of the most difficult fiery pieces I was ever connected with; but it is now quite conquered, and is an exceedingly extensive piece of coal-getting. I might also add, that there are pecuniary advantages in working the coal, as well as safety from fire, in the above mode of long work. T. DEAKIN.
Blaenavon, March 21.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY...Trellech Consolidated Mining Company—offices, at One.
Dartmoor Consols Mining Company—White Hart Inn, Coggeshall, Two.
WEDNESDAY...West Cornwall Railway—offices, at Two.
Indian and London Life Assurance—offices, at One.
Fuel Company—offices, at Twelve.
Alliance Assurance Company—offices, at Twelve.
THURSDAY...Mining Company of Scotland—offices, at Two.
Royal Mail Steam-Packet Company—London Tavern, at One.
Commercial Gas Company—London Tavern, at Twelve.
Colman Mining Association—offices, half-past Two.

[The meetings of Mining Companies are inserted among the Mining Intelligence.]

PROFESSIONAL LIFE ASSURANCE COMPANY.

The first general meeting of this company was held at the offices, 76, Cheapside, on Wednesday, the 29th March.

Colonel CAMERON in the chair.

The CHAIRMAN, in opening the business, said, that a very comprehensive report had been prepared, which he would call upon the actuary to read. Mr. BAYLIS (the actuary) accordingly proceeded to read the following REPORT.

Although a period of less than 12 months has elapsed since the complete registration of this corporation, and the actual commencement of business, the directors have much pleasure in availing themselves of this opportunity to meet the shareholders, and submit to them a statement of the progress and prospects of the company. The accounts, as approved and audited, and this day laid before you, are necessarily confined to the transactions of the company from April, 1847, the date of its commencement, to the 31st of December last, a period of only eight months. In reviewing, however, the affairs of the office from the date of its establishment to the present time, the directors are gratified to announce that, notwithstanding the extraordinary general depression of trade and commerce, a degree of success has attended the company, which promises well for its ultimate usefulness and stability. From the date of the issuing of the first policy on the 23d of April last to the present time, a term of scarcely 11 months, 161 policies have been effected, producing an income of 1016l. 6s. 3d.—a result they cannot, under the embarrassing circumstances of the times, but consider highly satisfactory and encouraging, although they regret to report that one loss by death, involving a claim of 400l., has, during the interval, occurred and been liquidated.

The directors have the satisfaction to inform the shareholders, that the capital of the company already subscribed for, and distributed among a highly respectable proprietary, places its affairs upon a safe and responsible basis. Out of 250,000l., constituting its entire capital, derived from 20,000 shares, of 12l. 10s. each, the sum of 92,562l. 10s. has, up to the present time, been appropriated and subscribed for. The number of shares for which the deed has been actually signed is 7405, of which 600 only remain unpaid upon, leaving a balance of 300l. due to the company. With respect to the unappropriated shares, the directors are desirous to apportion them in small numbers among parties able and disposed to promote the interests of the corporation, and earnestly request the assistance of the shareholders in effecting that object. With this view, they will at all times be willing to receive, and ready to comply with, the recommendations of the shareholders in a prudent distribution of a portion of the remaining shares. With regard to the interest due upon the paid-up capital of the company, the directors, considering it just and right that the shareholders should receive an adequate return for their several investments, propose, in accordance with the terms of the prospectus and deed of settlement, that a dividend after the rate of 5 per cent. per annum, to the 31st of December last, be paid to the respective shareholders. The directors refer with peculiar pleasure to the respectability and influence of their numerous agents and medical referees, from whose valuable co-operation and assistance, cordially given and earnestly exerted, the best and most permanent results are promised and anticipated. The liberal principles identified with every branch and operation of the company; the principle of connecting as intimately as practicable the wants of the living with the interests of the survivors; of securing annuities at moderate rates to all who may desire, as well to the professional man as to any and every other member of the community, to protect himself against the disastrous consequences contingent upon blindness, insanity, or upon any other affliction, bodily or mental; of rendering every policy issued by this company indisputable under every circumstance, except that of peroration; of allowing the assured to go to and reside in distant parts without payment of additional premium; these and other advantages, originating with, and peculiar to, this office, added to its safe and moderate rates of premium, have secured for the corporation a wide and valuable connection, accompanied with the best general wishes for its success.

The directors cannot conclude this, their first report, without again reminding the shareholders that the company was established at a time when the money market was most inauspicious, that the shares were advertised during the prevalence of a panic sufficient to impede the success of any company, however powerfully introduced to the public; and although the disastrous state of the money market still exists in an increased degree, the appreciation by the public of the benefits embodied in the institution is truly gratifying and acceptable to the directors; and the assured and the proprietary may rely, that no efforts or means will be wanting, on their parts, to realise the sanguine anticipations entertained of the company's success, to assist in accomplishing which, they respectfully invite, and confidently depend upon, the influence and co-operation of their shareholders, individually and collectively.

Mr. A. D. WESSON considered that the report presented to them was very satisfactory; and he should, therefore, have great pleasure in moving its adoption. Mr. GOLDWORTH seconded the motion, which was unanimously carried. The gallant chairman (Mr. W. Wellington Cooper) and Capt. Earle, were then re-elected as directors; and Messrs. C. M. Elderton and F. Wollast as auditors.

Mr. W. WHITE COOPER thought it but fair, that those gentlemen who devoted their time to the duties of auditors should receive some remuneration for their trouble; and he, therefore, begged to move, that they be allowed 10l. 10s. each. The motion, being duly seconded, was unanimously carried; and the CHAIRMAN called upon Mr. Baylis to give the meeting a statement as to the position of the company, with which he was better acquainted than any member of the direction.

Mr. BAYLIS said that, in availing himself of the opportunity of addressing the shareholders, which the chairman had so kindly afforded him, he must be allowed to express his opinion, that no company could have a better or more unanimous board than they had, or one in which the gentleman (Col. Cameron) who presided over it gave greater satisfaction. (Cheers.) He felt bound to state this; for in the unanimity of the directors existed the security of the shareholders. Their society, he trusted, would take a foremost rank among assurance companies; and, notwithstanding the embarrassments of the times, he believed that, in the business they had done, they had the germs of a great company. (Cheers.) They had had greater difficulties than most assurance companies to meet at starting, in consequence of the pressure of the times which had existed, and still to some extent existing; but if the directors, the shareholders, and the assured, supported it—as he hoped they would—the “Professional” must become a great company; and he was sure that no efforts would be wanting on the part of the directors to make it one of the best in the metropolis. (Cheers.) The great object the directors had in view was, to alleviate the wants of the living members, as well as to provide for the survivors of the assured. If, from a reverse in prosperity—upon a continuance of which no professional man could count—a shareholder, as an assurer in that company, ever came to want, there would be always found a fund to make provision for him in his old age. (Cheers.) That was one of the great objects they had in view from the first; and it might be satisfactory to know, that its being carried into effect, was amply provided for in the deed; and it was in the hands of the shareholders themselves to see that every benefit promised by the company was properly carried out. (Cheers.) There was not an institution where the directors, finding they had a large amount in hand, could appropriate it as they pleased—the solicitor of the company (Mr. Elderton) having inserted a clause in the deed, placing its disposal entirely in the hands of the shareholders. (Cheers.) Not only the assured, it should be recollected, but the shareholders themselves, were so situated, that they never could come to want, if that company were successful; and successful it must be, if it were properly supported by the shareholders themselves. He hoped the shareholders would excuse him, if he urged every one present to bring with him one policy per annum; but, for the present, he considered that they had done a great amount of business. He asked whether they were not of opinion, that their office was as firmly established as the oldest in the kingdom? They had got 100,000l. subscribed by gentlemen of undoubted respectability; and all they wanted, was to be able to print a list of subscribers, that would add to the confidence inspired by the position of their local agents. If they did not advance as fast as they might desire—if they did not yet show

NOTICE TO ADVERTISERS.—The NUMBER of STAMPS issued by the authorities of the Stamp-office, during 1847, to the DAILY NEWS, was..... 3,447,009.
This, we believe, is within eight per cent. of the number issued to the Morning Herald, Morning Chronicle, and Morning Post, all put together. In addition to the above, issued to the “DAILY NEWS,” morning paper, there were issued, for the evening edition, “THE EXPRESS”..... 778,714.
Which was more, we believe, than were issued either to the Globe or Standard, evening papers.—The “DAILY NEWS,” price THREEPENCE, is published every morning in time for the early mails.—Daily News Office, Whitefriars, Fleet-street.

large profits—they had got upwards of 80 proprietors with 100,000l. subscribed capital; and every one who knew what life assurance was, must feel that that was amply sufficient for every purpose they could require. He knew of no society that offered such benefits to the assured and the shareholders as that did; and if it was fairly carried out—and he was sure the directors would use their best exertions for the purpose—he knew nothing under the sun to prevent its success; and he was convinced, that all that was required, was the hearty co-operation of the proprietors, to make it one of the first offices in the world. (Cheers.)

The dividend of 5 per cent. upon the paid-up capital having been declared, the CHAIRMAN said that he was satisfied, if they only followed out the advice of Mr. Baylis, that theirs must become a good and prosperous undertaking.—Mr. GOLDWORTH thought they were greatly indebted to the actuary for his exertions, and he, therefore, begged to move a vote of thanks to him.

Mr. WESSON seconded the motion, which was carried unanimously. Mr. BAYLIS could assure them that he was extremely delighted at receiving that mark of their kindness; but he did not think that he had yet done anything to deserve their thanks. They had only just commenced business; but he hoped the next time he had the pleasure of meeting them, that their policies would have increased from 100 to 500, and their profits from 1000l. to 5000l. He felt that at present he had done so little, that he ought scarcely to receive his salary—(a laugh)—but he felt that there was a glorious field before them—(cheers)—and that when they were fully and fairly at work, there was no office which would better carry out their objects, not only of assuring lives, but in giving assistance to the shareholders, and those who had assured with them for five years. He thanked them most kindly for the vote they had just passed; and he hoped that when he met them next year—and they all acted on his suggestion, and introduced a policy to the office—that he should be enabled to give them such a statement of their success, as better to entitle him to their thanks. In conclusion, he must be allowed to express his gratitude to the directors, the surgeons, and every person connected with the company, for the assistance he had received from them. (Cheers.)

Captain EARLE said, that he was sure they would not separate without giving a vote of thanks to their worthy solicitor (Mr. Elderton), to whose exertions they owed the formation of the company. (Cheers.) He, therefore, begged to propose a resolution to that effect.

Mr. MASSEY had great pleasure in seconding the motion, which, on being put, was carried unanimously.

Mr. ELDERTON would not detain them long, but he felt that he should not be doing his duty, if he did not respond to the kind manner in which his name had been mentioned by Capt. Earle, and the equally kind manner in which it had been received by the meeting. He felt, that he had only done his duty to the company, and, therefore, their vote was doubly valuable. Though he was the solicitor of a great number of public companies, that was the only one in which he was a shareholder; and his being so, was a proof to them of the confidence he had in the principles upon which it was founded. (Cheers.)

Mr. TEULON said, that the merits of the directors had been already so ably brought before them, that he was sure he need not apologise for proposing a vote of thanks to them for their exertions. What he had seen had given him the fullest confidence; and he had no doubt, that all the promises that had ever been held out to the shareholders, would be fully realised.

Mr. WESSON seconded the motion. The resolution having been carried, the CHAIRMAN returned thanks on behalf of himself and colleagues, and begged to assure them, that no exertions should be wanting on their part to carry out the objects of the company to their fullest extent. He would not enter into a detail of what they intended to do, lest some time hereafter they might be called to account for not doing all they said they would—(cheers and laughter)—but they would use their best exertions to promote their general interests; and if the shareholders co-operated with them, he had no doubt that it would shortly be one of the first companies in the kingdom. (Cheers.)

A vote of thanks was then given to the medical officers of the company, which was briefly acknowledged by Dr. Barker and Mr. W. White Cooper; and thanks being voted to the chairman, the meeting separated.

ON VENTILATION AND DISINFECTION.

A little work on these important subjects, being the basis of a lecture delivered gratuitously by our esteemed correspondent, Dr. Murray, of Hull, at the Brechin Mechanics' Institute, and dedicated to Lord Pammure, has just issued from the press. The subject of ventilation, which is completed, is handled in Dr. Murray's usual masterly style; in it he explains numerous phenomena of daily occurrence, but which are generally much misunderstood, and shows how the immutable laws of the atmosphere may be taken advantage of for promoting health, and keeping up a proper circulation in every apartment of our dwelling-houses. After describing the chemical properties of the atmosphere, he remarks on the respiration of animals, as follows:—

“When animals respire atmospheric air, an important change occurs. The 79 proportions of nitrogen, indeed, remain unaltered; but a certain percentage, variable according to circumstances, has disappeared from the relative amount of oxygen, and has been supplanted by an equivalent of carbonic acid gas, the oxygen having been absorbed in the bronchiae, or air-cells, and passed into the circulation, which ejects, in return, carbonic acid gas. The nitrogen of the air expired ascends, in virtue of its inferior specific gravity; while the carbonic acid gas descends, unless winged by heat, when it will ascend, and remain buoyant until it be cooled down.”

He shows that precisely similar changes take place in the act of combustion. He says, “when flame accompanies combustion, by a statistical law, it tends upwards—the space in the chimney above is rarified, and the products of combustion thus ascend, and finally escape; but, if charcoal, coke, or anthracite be employed, yielding no flame, no such rarification ensues, and the mephitic products of combustion—carbonic acid gas and carbonic oxide—are evolved; the latter, a subtle and dangerous gas, which, equally with carbonic acid gas, acts on the brain as a narcotic poison.” The author then proceeds to show that close iron stoves of all descriptions are dangerous, and ought to be abandoned, as open fire-places will ever prove the best auxiliaries to health in this climate, avoiding the serious amount of deterioration referred to, and providing a free and unfettered focus, towards which pure currents of air will be constantly tending. The doctor particularly calls attention to the necessity of the greatest care in the circumstances affecting sleeping apartments. Too often the place of repose sets all sanitary rules at defiance; dense and close-drawn curtains impede the free circulation of the air, and imprisonment, in their folds, an atmosphere fraught with the deadly elements of respiration. A bird, in its cage, suspended from the roof of the bed, and shrouded in curtains, would inevitably perish during the night. Dr. Murray also tried an experiment with a live guinea-pig, in a basin of water, in his sleeping-room, and found it destroyed before morning by the impurity of the atmosphere. In speaking of other sources of deterioration to the atmosphere, such as the fermentation and decomposition of animal and vegetable matter, as cess-pools, dung-heaps, &c., he beautifully observes—

“Buried in the soil, and hidden from view, the decaying mass, offensive to the eye and destructive to health, is changed, by chemical laws, into forms of loveliness and elements of beauty; and from that from which we instinctively recoil, arise germs of vegetable life, lovely in their luxuriance, and replenishing our gardens with golden grain and other products, for the sustenance of man and beast.”

We regret that our space will not allow us to proceed further in our present Number, but shall avail ourselves on another occasion, of the further portions of the lecture, to give every information on this all-important subject, as also on that of disinfection, which, we doubt not, will be continued in the author's usually lucid and elegant style of action.

THE MAESTRO IRON-WORKS.—We regret to state, that the furnaces—two in number—were blown out on Saturday evening last, and every department of these works, the oldest established in the Llynfi Valley, is, at the time we are writing, at a complete stand. By this unfortunate event, between 800 and 400 persons have been thrown out of work; and as, in the present state of the iron trade, all the other neighbouring works appear to have their full complement of hands, the absence of any prospect of employment near home renders the case of these men still more distressing. It is rumoured, that the works are to be forthwith sold.—Swansea Herald.

OPENING OF THE WATERLOO AND LIMERICK RAILWAY.—The first public trial trip on this line was made on Monday last as far as Tipperary, a distance of 25 miles. Three commodious Limerick-built second-class carriages conveyed the directors and guests over the line, which was greatly admired for its evenness and perfection, and the beauty and solidity of the viaducts and bridges. The line will be opened for general traffic to Tipperary in a few days.

PATENT ALKALI COMPANY'S IRON PAINT.—This PAINT, now first offered to the public, is the PRODUCT of a PATENT PROCESS, and possesses VALUABLE and PECULIAR QUALITIES, not otherwise attainable. Its colour is a purple-brown—it is perfectly innocuous—is far more durable than lead paint, and two coats are fully equal to three of any other paint. A single coat will be sufficient to demonstrate this. It dries rapidly, and its durability is very great.

From its chemical composition, it is especially, and above all other paints, adapted to covering iron; also wood, and stucco, or brick walls. The peculiar oxidation of the base of this paint makes it impossible that further change should take place in its composition. Its identity with iron secures it from galvanic action, so injurious to the durability of lead paints on iron work. It has been exposed on shipping to the action of sea-water, and the sulphuretted hydrogen, so prevalent in sea-ports and tidal harbours, for three years, without change. Its cheapness and strength render it admirably adapted for iron railings, farm buildings, and shipping. It will also cover crooked timber. Price, by the ton, £20, delivered in London. All orders to be addressed to the offices of the company, 50, Fenchurch-street, London; where testimonials may be seen as to the value of the paint. EVANS, BROTHERS, Agents.

CALDWALL'S PATENT SELF-FLEETING WINDLASS, CAPSTAN, AND RIDING BITS COMPANY. OFFICES—No. 73, KING WILLIAM-STREET, LONDON.

The patronage of the Lords of the Admiralty and the Hon. Trinity Board, together with testimonials of several of the most practical, scientific, and influential naval men in the kingdom, having guaranteed the importance to the maritime world of the above-mentioned invention, it is now proposed to carry out the manufacture of the several patented articles—WINDLASSES, CAPSTANS, RIDING BITS, &c., by means of a capital of £100,000, to be raised in 5000 shares, of £20 each, and to be conducted by a company, to be formed for the purpose.

The above inventions, in addition to their superiority over the old windlass, capstan, &c., have the recommendation of greater economy, as they can be supplied at a less price—affording a very handsome profit, and, consequently, a large return to shareholders. Models may be seen in operation—prospectives obtained, and every information given, by application at the office, 73, King William-street, City, from Eleven till Four daily, and orders are received there and at the manufactory, Bell Wharf, Shadwell.

THE PATENT SAFETY FUSE FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, AND MOST EXPEDITIOUS MODE of effecting this very hazardous operation. From many testimonials to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—“I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this.” Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, 20, Berners, Cornhill.

FOURDRINIER'S PATENT SAFETY APPARATUS, FOR THE PREVENTING ACCIDENTS IN MINES AND OTHER PLACES, WHEN THE ROPE OR CHAIN BREAKS.

By the ADOPTION of this INVENTION the LIVES of the WORKING MINERS may be PRESERVED, and the PROPERTY of the MINE OWNERS PROTECTED from the serious consequences of either of the following accidents—viz.:

1. From the men, or the load, being precipitated to the bottom of the shaft when the rope or chain breaks: in this case the apparatus is self-acting.
2. From either the men, or load, being drawn over the pulley: in this case, also, the apparatus is self-acting.
3. From the fearful consequences to men or load of a “whirl,” or run: in this case the result is equally certain.

A COAL PIT, with the SAFETY APPARATUS ATTACHED to the CAGE, is daily at WORK near BURSLEM, in the STAFFORDSHIRE POTTERIES.

To inspect the apparatus, or to obtain any further information, application may be made to Edward N. Fourdrinier (the patentee), Cheddleton, near Leek, Staffordshire; or to Mr. Joseph Fourdrinier, 48, Arlington-street, Camden Town, London—who are prepared to GRANT LICENSES for the USE of the PATENT.

FLEXIBLE HOSE-PIPES FOR LOCOMOTIVE ENGINES, RAILWAY CRANES, FIRE-ENGINES, GAS, &c. PATENT VULCANISED INDIA-RUBBER HOSE-PIPES AND TUBING OF EVERY DESCRIPTION.

These pipes are made to stand hot-water without injury—are very superior to leather pipes, or the common India-rubber pipes; and, as they do not become hard or stiff in the lowest temperatures, or require any application when out of use, are particularly well adapted for fire-engines.

FLEXIBLE TUBING, of every description, for gas, chemical purposes, &c. VULCANISED INDIA-RUBBER WASHERS, all sizes, for steam and hot-water joints, &c.—Sole manufacturer, JAMES LYNNE HANCOCK, Goswell Mews, Goswell-road, London.

IMPORTANT TO RAILWAY AND STEAM NAVIGATION COMPANIES, MANUFACTURERS, AND ENGINEERS. W. BROTHERTON AND CO.'S PATENT LUBRICATING FLUID (or Animal Oil) FOR ALL DESCRIPTIONS.

W. B. & CO. have the pleasure to state, that the above article is extensively used in Her Majesty's Steam Navy, and by several of the principal Steam Navigation and Railway Companies, and is pronounced by them, and by the first practical engineers of the day, to be far better adapted for the purposes of lubrication than any other article hitherto used for such purposes. The Patent Lubricating Fluid is equally applicable for the most intricate and fine pieces of machinery, as for the heaviest bearings of the steam-engine. It is cheaper, much more economical, and cleaner than oils at present in use; is free from smell, and calculated to effect a vast saving in the expenditure of working steam power. Further particulars can be had, and testimonials sent, by application to the manufacturers, W. BROTHERTON & CO., Hungerford Wharf, Strand, London. N.B.—The above article will burn in lamps, and give a light equal to the best sperm oil.

TO ENGINEERS AND BOILER-MAKERS. LAP-WELDED IRON TUBES, FOR MARINE AND LOCOMOTIVE STEAM-BOILERS, TUBES FOR STEAM, GAS, AND OTHER PURPOSES, ALL SORTS OF GAS FITTINGS.

THE BIRMINGHAM PATENT IRON TUBE COMPANY, 42, CAMBRIDGE-STREET, BIRMINGHAM, & SMETHWICK, STAFFORDSHIRE, MANUFACTURE BOILER AND GAS TUBES, under an exclusive License from Mr. R. Brown, the patentee. These tubes are very extensively used in the boilers of marine and locomotive steam-engines in England and on the Continent—are stronger, lighter, cheaper, and more durable than brass or copper tubes, and are warranted not to open in the weld. 42, CAMBRIDGE-STREET, CRESCENT, BIRMINGHAM. WORKS—SMETHWICK, STAFFORDSHIRE. LONDON WAREHOUSE—No. 68, UPPER THAMES-STREET.

Just published, Part I., **COMBUSTION OF COAL, CHEMICALLY & PRACTICALLY CONSIDERED.** With coloured plates. By CHARLES WYLLIAMS, Esq. London: Simpkin, Marshall, & Co., and J. Wode—Birmingham: Wrightson & Webb.

SNYDER'S PATENT LEATHER COMPANY. (Provisionally Registered, pursuant to the Act 7 and 8 Vic., cap. 110.) Capital £20,000, in 12,000 shares, of £5 each.—Deposit 10s. per share.—No call to exceed 10s. per share, nor at intervals of less than three months.

CHAIRMAN—JOHN GARDNER, Esq., M.D., 51, Mortimer-street, Cavendish-square. PROVISIONAL DIRECTORS. G. W. BLANCH, Esq., 3, Abchurch-lane, Blackfriars-road. H. ENGLISH, Esq., 25, Fleet-street. W. PEARSE, Esq., High-street, Exeter. THOMAS PORTER, Esq., City-terrace, City-road. W. SHEARMAN, Esq., 12, Green-street, Ardwick, Manchester. JOSEPH SMITH, Esq., Parkfield, Rusholme, Manchester. W. STAGG, Esq., Green-park, Manchester. J. TRUSCOTT, Esq., Hemmingsford Villa West, Barnsbury-park, Islington. D. L. WILLIAMS, Esq., 5, Edwards-square, Kensington. W. M. WILLIAMS, Esq., 17, Wilnot-street, Brunswick-square. BANKERS—The Commercial Bank of London, Lothbury. SOLICITOR—E. Moss, Esq.—SECRETARY—Mr. E. W. Fenton. OFFICES—TEMPLE CHAMBERS, FLEET-STREET.

This company has been formed to carry into effect an improvement in the art of tanning, by which leather is rendered not only superior in quality, but is produced at a lower price, and more uniform in texture, than by any process hitherto known. A patent having been granted to Mr. Snyder for his improvements in tanning, the rights of the patentee have been secured, on advantageous terms, as also his services in carrying out the operations of the company.

From estimates which have been carefully gone into, and which can be inspected on application at the offices of the company, a large return on the capital employed will be obtained, even to the extent of 100 per cent. per annum.

This estimate may appear to show profits so far beyond the ordinary result of trade as to call for explanation. Snyder's patent effects a saving of—1. Half the time in tanning; 2. 12 to 15 per cent. of skin or hide—i.e., the leather produced weighs so much more; 3. A saving of 10 per cent. of tan; and 4. The production of a superior article.

In respect Snyder's Leather will compete with the best French Leathers. Prospectives, with every information, will be afforded on application to E. Moss, Esq., solicitor, 4, Queen-street, Cheapside; or to the secretary, at the offices of the company, to whom applications for shares are to be addressed.

The directors beg to claim the attention of the public to their arrangements, which, they trust, will be found to secure the interest of subscribers, without incurring any of those evils not unfrequently attendant upon such enterprises.

THE GREAT POPULARITY OF HOLLOWAY'S OINTMENT AND PILLS IN THE WEST INDIES IN THE CURE OF ALL SKIN DISEASES.—A young gentleman, residing in St. Kitt's, was afflicted with a most distressing skin disease, commonly termed “the chingles”—he had the best medical assistance that could be obtained in the island; but, finding that he derived no benefit from their treatment, he determined on having recourse to Holloway's ointment and pills, which had a most gratifying effect, for, in a very brief period, these inveterate eruptions completely disappeared. Mr. T. C. Chiles, of St. Kitt's, writes for the accuracy of the statement.—Sold by all druggists, and at Freshair Holloway's establishment, 244, Strand, London.

TIN VALE MINING COMPANY.—The First and Special

General Meeting of shareholders was held at the offices of the United Kingdom Cattle Assurance Company, 9, Cheapside, on Monday, the 27th March, 1848.

ROBERT OWEN ALAND, Esq. (Chairman), in the chair.

The circular convening the meeting having been read by the purser, the following report was laid before the shareholders:—

REPORT.

The shareholders having been called together within so short a period, since the company commenced operations, it might not have been expected that the directors could be in a position to state much as to the general affairs of the undertaking. They are, however, happy to say, they feel justified in declaring that every thing progresses most satisfactorily; and that there is every reason to believe the statements put forth from time to time, by the captain of the mine, will be fully realised. The works on the part of the company commenced in November, only four months since; yet the captain asserts, that the mine is now in a state to pay its own expenses, which is, of itself, a guarantee of his opinions, as to the ultimate result being well founded. The mine is purely in its infancy; yet there are already four parces of men working on tribute at 10s. in 20s., and nearly £500 worth of tin on bank; so that, altogether, the success may be considered established, and the prediction of Capt. Floyd, as to the mine becoming remunerative within a few months, fulfilled. There is now much more tin than the present crushing-power can work, but the directors have made arrangements to remedy this inconvenience without delay. The captain is present, and will be happy to enter into any detail. The accounts are on the table, by which it will be seen the whole purchase money of £1000 has been paid; and a freshhold house, and ground for building cottages, have been bought for the company. The sum of only £450 has been expended in working, including trade bills and additional machinery, and there is a balance of £220 in favour of the company.

With respect to the specific object for which this meeting is summoned, the directors have to mention that they have obtained the opinion of one of the most competent actuaries in London, which does not justify the board in recommending the purchase of the claim of the original lessee on the terms proposed by him. The case drawn up by the solicitor, and the opinion of the actuary, will be read by the purser. It was offered for £2000, and is valued at £204. It must be borne in mind, that this is estimated on the basis of an actual and positive clear income of £1000 per annum, which may, of course, be much less or much greater. The captain, however, states, that in cutting the great cañter lode, the clear income may be £5000. We are within 12 fms. or 14 fms. of this point, and to reach it will occupy about four months, if the ground continues hard. Altogether, therefore, this must be considered as a speculative bargain; but, as it is most desirable that it should become the property of the company, the directors recommend its purchase. The chairman has taken great trouble in the matter, has seen the lessee several times on the subject, and is authorised to say he will take less.

The directors are glad to avail themselves of this opportunity of expressing their full confidence in Capt. Floyd, as the agent at the mine; and can assure the shareholders, that the exertions of that gentleman have been most unremitting and energetic in promoting the interests of the company. The directors have to mention the retirement from the board of B. F. Scott, Esq., and J. P. Osborne, Esq.; the former, from his intention to reside away from London, and the latter, from continued ill health. The directors have nominated in their place, Edward Hunter, Esq., of Finchley-road, and George Richard Metcalf, Esq., of Great Marlborough-street, and hope this meeting will sanction their appointment. Specimens from the mine are on the table, and it will be seen that the tin is of the richest description. The directors urge shareholders to inspect the property for themselves, and they feel assured they will return perfectly satisfied.

ROBERT OWEN ALAND, Chairman.

Proposed by William Varley, Esq., and seconded by William Johnson, Esq.,

That the report of the directors be received, and entered in the cost-book.

The CHAIRMAN said, before putting the motion, he could not refrain from making a few observations. The meeting being called for a special purpose, it was not usual to revert to any other subject; but, taking into consideration the flattering accounts they had received, and knowing, from his own inspection of the mine, that those accounts were not over-coloured, he did not think there could be a better opportunity of calling the attention of the shareholders to the present position and future prospects of the company. The gentlemen who had undertaken the development of the mine were not speculators, but private individuals, and, being perfectly satisfied with the result of their enterprise, had every confidence in its value; and, therefore, strongly recommended it to their personal friends. Though it had been alluded to in the public press, it was not by their desire. The directors themselves held a large number of shares, and they would willingly hold more, only they did not wish the shareholders to think that they were overreaching in the matter. (Cheers.) They had present that day a gentleman, who was an exception to the general run of mining capitalists, who generally deal in prophecies, and led their prophecies on for five or six years before anything was produced, if it ever was; but, whatever he had said had been immediately realised. He (the chairman) said, Mr. Daves, and Mr. Butler, had originally gone down unexpectedly to view the mine, and consequently no kind of preparation was made for them; but, so apparent was it, that even the wayfarer, or ignorant man in mining matters, could not fail to see that there was tin upon the spot. On their visit no one knew the object of it; they were, however, introduced to Captain Floyd, who was rather rough in his manner, but he (the chairman) did not like him any the less for that, who said, "this mine is a fine thing, and for every £100 any man would give me to work with, I will guarantee to return him £400." The prophecy of the captain's return from month to month, and he had hitherto more than proved what he had led them to expect. (Cheers.) They would see from the report, the trifling amount he had expended upon the works, and yet they had already made a return of from £250 to £300; and, if they had had the crushing power, it might have been nearer £1000. They could have sent a portion of their ore to the market before that meeting—but the captain informed them, that it would cost as much to send £250 worth to the market as six times that quantity, and that in five weeks he would have such a quantity prepared for the market that would put the success of the mine beyond all doubt. (Cheers.) The captain said, that if they would have the cañter lode cut, and give him extra crushing power, he would return them £1000 in five years. (Cheers.) He (the chairman) thought they had some reason to put a little faith in the promises of the captain from what he had already done; but he also said, "if you do not think fit to have the cañter lode cut, give me extra crushing power, and with the various staff already on the mine, I will give you a return of £4000." He (the chairman) was no miner; but, having had considerable experience in smelting, and the refining of metals, while inspecting the mine with his friends, he had picked up various samples of the ore at random, which he had pounded and washed. He afterwards had it tested by Mr. Mitchell, who certified that the sample marked "Stream" contained 52 per cent. of metallic tin; that marked "Adit A" contained 68 per cent.; and that marked "Adit B," 71 per cent. That was the report made to them; and, finding that they were in good hands with Capt. Floyd, they had no objection to entering into the scheme. (Cheers.) With regard to their purser (Mr. Mansell), whose services were at present gratuitous—in fact, he paid not and lot with them, though he hoped that, hereafter, they would be enabled to give him some solid mark of their acknowledgments of his services; that gentleman was connected with some of them in a mine not quite so lively as the Tin Vale; and he having entered into a bargain for its purchase, generally offered to share it with those who were engaged with them in the other mine. (Cheers.) The original agreement for the purchase of the mine was to give £1000 down, and £1500 out of the profits, but the lessee, wishing to realise his interest at once, had offered to sell it for £900. The directors had taken the opinion of an actuary on the subject; and though they did not think the amount mentioned ought to be given, so convinced were they of the value it would be to them to possess the whole of the interest, they were prepared to recommend that negotiations should be entered into for its purchase. A further expense of from £300 to £400 might also be required to develop fully the resources of the mine. On an expenditure of £450 they had already a return of £250 or £300 worth of ore ready to go to market, which would have been much increased if they had had the power to crush it. The crushers had only been at work nine days.

The resolution was then put, and carried unanimously.

The annexed case, drawn up by the solicitor, and the opinion of Mr. Farrance thereon, was then read to the shareholders.

By the terms of the annexed prospectus, the directors are to pay the original lessee one-tenth of all profits, until £1500 shall have been so paid, but with power to cancel such payments for £1000 down. The original lessee has now proposed to sell their interest to the company for a less amount than the above-mentioned £1000—this proposal the directors feel disposed to entertain—and the only question is as to the actual value of such interest.

It is, of course, impossible to determine, with any very great degree of accuracy, the amount of the annual profits; but, from the present appearance of matters, it is reasonable to suppose that such (net) profits will amount to £1000—to one-tenth of which the lessee will, under their present agreement, be entitled.

Taking the net annual profits at £1000—Mr. Farrance is requested to advise what is the present value of the interest of the original lessee?

"£235—G. J. FARRANCE, City of London Life Assurance Society."

Case continued.

"It is probable that the directors may determine to apply a portion of the profits toward improvements, and extending the works. Supposing, therefore, one equal moiety of such profits were to be annually applied toward those purposes, and the amount so applied should yield returns at the same rate—then, What is the present value of the lessee's interest?"

Opinion.

"If I rightly apprehend this question, it is proposed to devote a moiety of the profits (£500, minus £100—the portion set aside to accumulate for the benefit of the original lessee, of £900 for purposes of improvement; thus, a moiety of £500 is equal to £450, and a tenth of this is £45, annually to follow the original distribution for the benefit of the lessee. The answer, therefore sought, is the present worth of £45 per annum for 12 years, being £398 16s."

Value of lessee's interest, first question.....£235 0 0
Value, assuming lessee to take such an interest stated in the second question.....398 16 0

United value.....£1233 16 0

"G. J. FARRANCE, Actuary."

"City of London Life Assurance Society, 2, Royal Exchange-buildings, March 15, 1848."

Capt. Floyd then entered at some length into an explanation of the character of the mine, confirming the statements of the chairman as to its value, and stated that its working must always prove comparatively light in cost, from their having so much water-power at their command, that they could never want the assistance of steam. He also mentioned that the mine contained a valuable body of copper, which was not yet cut. "We have, I think," said Capt. Floyd, "about 10 or 14 fms. further to drive to cut the great cañter lode, and I think it will cost the space of four months to complete the work—I mean to cut the lode, the ground being so hard; and, from the present appearance of the lode in the shaft, from its size and goodness, being 6 ft. wide, producing large quantities of tin, I do not hesitate to say, when cut and in full course of working, which will take about six months—that is, four to cut the lode, and two to explore on the lode—we shall then be in a position of returning £5000 per annum—that is, with the tin risen from the middle and north lode; and, should the great cañter lode fall, I do not hesitate to say the middle and north tin lode now working, will, in the above-mentioned time—six months—be making 40000 per annum. The value of the tin at present raised from the mine is about 68d. per ton." He predicted that this mine would prove a second Wheal Maria—(cheers)—which was the first to discover, though, being a poor man, he had not reaped any benefit from it. "I was the person," continued Capt. Floyd, "that went with Capt. Thomas Richards and Andrew Mallat. The said men are now in the land of the living, and, as to the truth of this assertion, that I was the man that showed Mr. Hitchens, of Tipton, Mr. Thomas, and another gentleman from London, the Great Wheal Maria Mines, and broke, with my own labour, in the presence of the above gentlemen, the gossan that was first sent to London by Mr. Hitchens. After showing the lode we parted. I went about the space of 50 fms., when Mr. Hitchens called me back, and thus accosted me—'Now, Floyd, allowing you was a man worth 10000 (which you are not), what would you do with it?' 'Why, Sir (I said), I would go and sell it in this place, for I am sure there is abundance of ore here, close

at hand.' 'Now (said Mr. Hitchens), this is a mine from his youth. I know and agree in his opinion, and believe there are great riches to be had in this spot.' Capt. Richards then paid me 5s. for my day's work, and I went home. Now, I tell you as I told the above gentlemen, you know how the Wheal Maria turned out, and I think it entitles me to have some confidence put in my judgment as a miner. Again, ask Mr. Thomas, if you please, whether I did not break and bring out of the Tamar River a large stone of yellow ore, at the same time I showed them the Great Wheal Maria copper gossan lode. I will also inform you, that by my reporting, Mr. Hitchens got the Wheal Williams and the West Wheal Maria, and I verily believe they will both make good mines."

Moved by the Chairman, seconded by William Johnson, Esq., and Resolved,—That this meeting considers it most desirable for the interests of the shareholders generally, that the claim of the original lessee should be purchased—and hereby authorise the directors to effect this object.

Proposed by the Chairman, seconded by John Routh, Esq., jun., and Resolved,—That a call of 15s. per part or share be forthwith made to carry out the foregoing resolution, irrespective of the existing capital—that the same be paid on or before Monday, the 10th of April—and if any balance remain from this special call, it be carried to the capital account of the company.

Proposed by the Chairman, seconded by Captain Rose, and Resolved,—That this meeting has much pleasure in confirming the election of Edward Hunter, Esq., and George Richard Metcalf, Esq., as directors of the company, in the room of Benjamin Forrester Scott, Esq., and John Forford Osborne, Esq., who have retired.

Proposed by William Johnson, Esq., seconded by John Routh, Esq., jun., and Resolved,—That the best thanks of the shareholders are due, and are hereby given to the chairman and directors for the efficient manner in which the affairs of the company are managed.

Proposed by the Chairman, seconded by John Butler, Esq., and Resolved,—That the best thanks of the shareholders be given to the purser for the energetic, impartial, and business-like manner in which he has performed the duties of his office.

Proposed by the Chairman, seconded by Joseph Carrington Ridgway, Esq., and Resolved,—That the meeting has great pleasure in expressing its sense and approbation of the judicious manner in which the legal affairs of the company have been managed by the solicitor.

Proposed by the Chairman, seconded by Bartholomew Daves, Esq., and Resolved,—That the thanks of this meeting be given to Capt. Floyd for the active and zealous manner in which he has conducted the works at the mine, and carried out the objects of the company.

The chairman left the chair on the motion of the purser, seconded by John Butler, Esq. Proposed by William W. Mansell, Esq., seconded by John Butler, Esq., and Resolved,—That Joseph Carrington Ridgway, Esq., do take the chair. Proposed by Joseph Carrington Ridgway, Esq., seconded by Captain Thomas Rose, and Resolved,—That the meeting cannot separate without conveying their warmest thanks to the chairman for the manner in which he has presided this day, and for the constant exertions made by him at all times to promote the interests of the shareholders.

Statement of Receipts and Expenditure on Capital Account of the Company.

Do.—To deposit of £2 per part, or share, on 1000 parts, or shares.....	£2000 0 0
Eight transfers, at 2s. 6d. each fee.....	1 0 0
Total.....	£2001 0 0
Ca.—By payment of the purchase-money of the mine sett.....	£1000 0 0
Cost-sheets, machinery, rent, assaying, office, and travelling expenses.....	£350 10 8
Purchase of tin streams and freshhold-house and building ground.....	76 6 0
Legal expenses for leases, &c.....	104 0 0
Printing and stationery, &c.....	39 7 6
Balance to credit of company.....	290 15 10
Total.....	£2001 0 0

CORNWALL NEW MINING COMPANY.

Capital £100,000, divided into 20,000 shares, of £5 each.

(With power to be increased.)

To be incorporated, in pursuance of the statute of 7 and 8 Vic., cap. 110—by which the responsibility of each shareholder is limited.

Deposit 20s. per share.

Not to be Paid until the Company is completely Registered and Incorporated.

The CORNWALL NEW MINING COMPANY is ESTABLISHED TO WORK A SERIES OF TIN AND COPPER MINES, chiefly in the district of ST. IVES, which has hitherto afforded a large profit on its return of ore than any other part of the county.

In pursuance of the plan, five of these descriptions have been already selected—viz.: Gossan Tin Mines, Trewortha Tin and Copper Mine, Bray Tin and Copper Mine, Trevanoe Tin and Copper Mine, and Wheal Squire Tin and Copper Mine, with whose owners the committee have been enabled to make such advantageous arrangements, as to enable them to work one or more with even a small portion of the proposed capital.

These mines are not only known to contain mineral ores of immense value, but the workings are already so far advanced, that the lodes ascertained and reached must produce early and large returns; and, in addition to the above, there are others which the committee have secured on sufficient public support being obtained. With a view of inducing the public generally to avail themselves of such a beneficial employment of their capital, the committee have made the shares £5, and of which only £3 10s. is to be paid within 18 months—limiting further calls to the control of the subscribers themselves, and to be made only when a dividend shall have been declared.

Applications for shares to be made, in the usual form, at the offices of the company, 17, Essex-street, Strand; and to the following brokers and agents, of whom detailed prospectuses may be obtained:—Messrs. G. and T. Irvine, Liverpool; Messrs. Cardwell and Sons, Manchester; Messrs. J. Scott and Son, Birmingham; Messrs. Rhodes and Hayes, Leeds; Messrs. Brady and Co., Hull; Mr. Joseph Clarke, jun., Southampton; Mr. Chas. Clay, Halifax; Messrs. William and Charles Skardon, Plymouth; Messrs. W. Moore and Co., Huddersfield; Mr. Thomas Dewhurst, Bradford; Mr. Henry Vatcher, Exeter; Mr. Ralph Dodsworth, York; Mr. W. F. Collier, Brixham; Mr. Crowe, Great Yarmouth; Mr. Charles Vincent, Dartmouth; Messrs. Edward Morgan and Co., Norwich; Messrs. Robinson Crusoe and Son, King's Lynn.—Prospectuses can also be had at the office of the Mining Journal, 25, Fleet-street, London. GEORGE LOCKWOOD, Secretary. Office, 17, Essex-street, Strand.

EAST WHEEL FRIENDSHIP MINING COMPANY, ADJOINING OLD WHEEL FRIENDSHIP.

TO BE WORKED ON THE "COST-BOOK" PRINCIPLE.

REPORT OF J. H. HITCHINS, ESQ., OF THE DEVON GREAT CONSOLS. In viewing the sett generally, I have only to remark, that I consider it one possessing advantages of more than ordinary character; and, as a mining investment, as good as any can be. The lode at present in the adit end, now driving east of the River Tavy, being the large masterly one of Wheel Friendship Mines, which has proved so profitable to the adventurers—from 4 to 5 feet wide, intermixed throughout with gossan, mundle, copper, peach, pryan, and all the other characteristics comprised in the term "kindly." Application for the remaining shares, or for further particulars, apply at the office of the company, 48, Threadneedle-street; or of Mr. James Lane, 75, Old Broad-street.

BANGOR AND COYTOMOR SLATE COMPANY, BANGOR, NORTH WALES.

Provisionally Registered under the Statute.

Capital £50,000, in 5000 shares, of £10 each.—Deposit £2 per share, on complete registration.

DIRECTORS.

GEORGE BURGE, Esq. JOHN YATES, Esq.

WILLIAM S. POSTER, Esq. JOHN YATES, Esq.

CONSULTING ENGINEER—John Taylor, jun., Esq., F.R.S.

BANKERS—London Joint-Stock Bank.

SOLICITORS—Messrs. Fyson, Curling, and Hope.

AUDITOR—Mr. J. E. Eley.

SECRETARY—Mr. William Nicholson.

This company is formed for the purpose of working a portion, consisting of 52 acres, of the Great Bangor Slate Bed, situated about five miles from the port of Bangor, on the London and Holyhead road, and held under a lease, of which 21 years are unexpired. The Coytomor estate adjoins the celebrated quarry belonging to Colonel the Hon. D. Pennant, which has been worked upwards of 70 years, and employs at the present time 2600 men, producing an estimated profit of upwards of £50,000 per annum.

On the same vein or bed, to the south-west, is the quarry of Thomas Asheton Smith, Esq., employing 1500 men, and yielding an estimated profit of £50,000 per annum. These quarries were commenced by an outlay of a few thousand pounds.

The vein or bed of the Coytomor estate is the same, both in width and quality, as that of Colonel Pennant's, and Mr. Ashteton Smith's. It is shown by a small, but good, quarry, the Pentadryn, worked to the depth of 150 ft., within 20 yards of the boundary of this company's quarry, and by shafts sunk in various parts of the sett.

The Bangor and Coytomor Quarry has not yet been worked, except upon trial, but a tunnel 9 ft. by 7 ft. has been driven from the turnpike road, 350 yards through the slate bed, to drain the quarry, and to take off the slate from the lower level, for which a tramway is already laid down. Six years have been occupied in driving the tunnel, which now renders the erection and cost of machinery unnecessary. The tunnel was constructed by the late Mr. Giles, C.E.

The apron, or top of the quarry, consisting of loam and broken slate rock, does not exceed 10 yards in thickness, which may be cleared off within three months, when an unlimited quantity of the best blue and purple slate may be quarried.

Quarrying is chiefly done by piece-work. The wages paid at the adjoining quarries are under 30s. per thousand: the cartage to the port is 9s. per thousand, or 3s. per ton; the present price of slate, taking the average of Duchesses, Contesses, and Ladies, is about 85s. per thousand, leaving a gross profit, after the quarry has been well opened, of 50 per cent. on the labour expended, and a net profit of upwards of 30 per cent. The profit on the principal quarries along this great bed exceeds that amount.

Such is the repute, and so great is the demand for Bangor slate, that, on an average, throughout the year, from 50 to 60 vessels, of from 50 to 400 tons, lie at the port of Bangor waiting their turn for cargoes from Colonel Pennant's quarry alone.

During the late panic, when the price of almost every article of commerce was reduced 20 per cent., the list price of the principal slate quarries suffered no diminution. A piece of freshhold land, adjoining the Menai Strait at Bangor, has been purchased, on which a wharf for shipping the slate, may be constructed at a moderate expense. The capital of the company will be £50,000, but not more than £5 per share, or £30,000, will be called up within the first 12 months, which sum is deemed sufficient to cover the purchase money and all other outlays, and to put the quarries into full operation.

Applications for prospectuses, plans, and shares, to be made to Messrs. Foster, brothers, 25, Tokenhouse-yard; Mr. James Lane, 75, Old Broad-street, broker; or to Mr. Nicholson, at the office of the company, 57, Old Broad-street, London.

TO MINE AGENTS, MINE SURVEYORS, &c., W. WILTON, MATHEMATICAL, PHILOSOPHICAL, AND OPTICAL INSTRUMENT MAKER.

Begs to call the attention of MINE AGENTS and SURVEYORS to his MINER'S THEODOLITE, and other IMPROVED INSTRUMENTS, adapted to MINE SURVEYING; and to assure them, that, from many years' constant application of his energies in one of the most active mining districts to this particular branch of mathematical instrument making, he is enabled to furnish instruments, equal in point of accuracy and workmanship, and superior as regards adaptation to the wants of the miner, to those supplied by almost any other house.

A descriptive price list sent free per post, on application.

ANTIMONY AND SILVER-LEAD MINING AND SMELTING COMPANY.

1000 shares, of £5 each.

NOW AT WORK ON THE "COST-BOOK" PRINCIPLE.

Applications for shares to be made to Mr. R. T. Trapp, Fore-street, Exeter; Messrs. W. King and Co., Newcastle-upon-Tyne; and Mr. Bartlett, 58, Lombard-street, London.

BRISTOL AND EXETER RAILWAY.—CONTRACTS FOR CARRIAGE STOCK.

The directors of the BRISTOL AND EXETER RAILWAY will meet at their office, 30, Broad-street, Bristol, on Wednesday, the 26th of April, to RECEIVE TENDERS for the MANUFACTURE and DELIVERY of CARRIAGE STOCK, of the following descriptions—viz.: Iron Under Carriages.

Iron Goods and Cattle Waggon, and Carriage and Cattle Trucks, and Third-class Carriage Bodies.

Wooden Timber Trucks, Horse Box Bodies, and First and Second-Class and Composite Carriage and Luggage-Van Bodies.

Drawings, specifications, and forms of tender, may be seen at the office of the company's engineer, No. 1, De-la-Hay-street, Westminster, on and after Monday, the 10th of April.—Tenders, inclosed in sealed covers, with the names of the parties, marked "Tender for Carriage Stock," and addressed to the secretary, must be delivered at the company's offices, in Bristol, before one o'clock, on the 26th of April, when parties tendering, or their authorised agents, are requested to attend.

The directors do not bind themselves to accept the lowest tenders. Manufacturers, whose tenders may be accepted, will be required to enter into bonds, under penalties, for the due fulfilment of their contracts.

By order of the directors,

Bristol Office, 30, Broad-street, March 22, 1848.

J. B. BADHAM, Sec.

CALEDONIAN RAILWAY COMPANY.—LOANS ON DEBENTURES.

TENDERS OF LOANS ON DEBENTURE BONDS are now RECEIVED in sums of not less than £500, for any number of years not exceeding five. Interest to be at the rate of 5 per cent. per annum, payable half-yearly, in London, Edinburgh, Glasgow, or in any country bank.

Tenders to be addressed to this office, giving full name and address of lender.—Parties may also communicate with Messrs. Foster and Braithwaite, 68, Old Broad-street, London.

D. RANKINE, Treasurer.

Caledonian Railway Office, Edinburgh, Feb. 25, 1848.

PROFESSIONAL LIFE ASSURANCE COMPANY,

Connecting the Clerical, Legal, Military, Naval, and Medical professions, and holding out advantages to the public not hitherto offered by any similar institution.

Incorporated.—Capital £250,000.

Established upon the mixed, mutual, and proprietary principle.

Rates essentially moderate.—Every description of policy granted. Immediate, survivorship, and deferred annuities; and endowments to widows, children, and others. Every policy (except only in cases of personation), indisputable.—The assured permitted to go to and reside in Canada, Nova Scotia, New Brunswick, Australasia, Madeira, Cape of Good Hope, and Prince Edward's Island, without additional premium.—Medical men remunerated for their reports.—Loans granted on real or personal security.—One-tenth of the entire profits appropriated for the relief of the assured while living, and of his widow and orphans.—Annuities granted in the event of blindness, insanity, paralysis, accidents, and any other bodily or mental affliction, disabling the parties. Persons of every class and degree admitted to all the advantages of the corporation.—Rates for assuring £100 at the age of 25, 35, 45, and 55, respectively—namely, £1 14s. 6d., £2 5s. 6d., £3 4s. 3d., and £4 18s. 6d.

Prospectuses, with full details, may be had at the office.—Applications requested from parties desirous of becoming agents. EDWARD BAYLIS, Actuary and Secretary.

Offices, 76, Cheapside, London.

FOUR-FIFTHS, or EIGHTY PER CENT., OF THE PROFITS OF LIFE INSURANCE

divided amongst the participating Policy-holders of the

ROYAL FARMERS' AND GENERAL FIRE, LIFE, AND MARINE INSURANCE INSTITUTION.

OFFICES, STRAND, LONDON.

Capital £500,000.—Empowered by Special Act of Parliament.

The guarantee of an ample capital, and exemption of the ASSURED from the LIABILITY OF PARTNERSHIP—Low Rates of Premium.—The usual commission to solicitors.

FIRE INSURANCE of every description effected at moderate premiums.

The renewal receipts for premiums on policies falling due at Lady-day are now ready at the head office, or in the hands of the agents in the country, and must be taken up on or before the 8th day of April, 1848, when the 15 days allowed by this office over and above the time for which they are insured will expire.

Prospectuses and every information may be obtained of the agents, or at the head office. WM. SHAW, Managing Director.

NATIONAL LOAN FUND LIFE ASSURANCE SOCIETY,

26, CORNHILL, LONDON.

Capital £500,000.—Empowered by Act of Parliament.

This institution embraces important and substantial advantages with respect to Life Assurances and Deferred Annuities. The assured has, on all occasions, the power to borrow, without expense or forfeiture of the policy, two-thirds of the premiums paid (see table); also the option of selecting benefits, and the conversion of his interests to meet other conveniences or necessity.

Assurances for terms of years are granted on the lowest possible rates.

DIVISION OF PROFITS.

The remarkable success and increasing prosperity of the society has enabled the directors, at the last annual investigation, to declare a fourth bonus, varying from 35 to 65 per cent. on the premiums paid on each policy effected on the profit scale.

EXAMPLES.

Sum.	Prem.	Year.	Bonus added.	Bonus in Cash.	Permanent reduction of Premium.	Assured may Borrow.
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£1000	£0 3 4	1837	£217 15 1	£109 0 11	£16 0 4	£445 0 0
		1838	193 3 0	87 1 4	13 10 3	395 11 1
		1839	165 11 10	74 1 9	11 3 1	346 3 3